

EXHIBIT C

HIGHLY CONFIDENTIAL

**UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OHIO
EASTERN DIVISION**

**IN RE NATIONAL PRESCRIPTION
OPIATE LITIGATION**

MDL No. 2804

Case No. 17-md-2804

This document relates to:

Case No. 17-OP-45004

THE COUNTY OF CUYAHOGA, OHIO et
al.

vs.

PURDUE PHARMA L.P. et al.

and

Case No. 18-OP-45090

THE COUNTY OF SUMMIT, OHIO et al.

vs.

PURDUE PHARMA L.P. et al.

**EXPERT REPORT OF
MATTHEW G. BIALECKI, CPA, CFF, CGMA**

HIGHLY CONFIDENTIAL

TABLE OF CONTENTS

I.	INTRODUCTION.....	- 3 -
A.	Qualifications.....	- 3 -
B.	Scope of Engagement.....	- 3 -
C.	Compensation.....	- 4 -
D.	Documents and Information Considered.....	- 4 -
II.	SUMMARY OF OPINIONS.....	- 5 -
III.	BACKGROUND	- 6 -
IV.	COMPARISON OF REPORTS	- 7 -
V.	OPINIONS AND BASES FOR OPINIONS	- 11 -
A.	Methodology to Calculate Past Opioid Costs	- 11 -
B.	Overview of the County Governments.....	- 19 -
C.	Analysis of the “Affected Divisions” of Cuyahoga County	- 25 -
D.	Analysis of the “Affected Divisions” of Summit County	- 78 -
E.	Calculation of Maximum Past Opioid Costs	- 138 -
VI.	INSUFFICIENCIES OF THE PLAINTIFFS’ EXPERTS’ METHODOLOGIES AND OPINIONS	- 140 -
A.	Methodological and Foundation Errors	- 144 -
B.	Unreliable Determination of “Affected Cost”	- 151 -
C.	Inappropriate, Deficient, and Insufficient Data.....	- 160 -
VII.	ABATEMENT.....	- 177 -

HIGHLY CONFIDENTIAL

I. INTRODUCTION

A. Qualifications

I, Matthew G. Bialecki, am a Managing Director of Alvarez & Marsal Disputes and Investigations, LLC (“A&M DI”) in Chicago, Illinois and the Eastern U.S. Region Practice Leader of A&M DI. My business address is 540 West Madison Street, Suite 1800, Chicago, IL 60661. As part of my over 25 years of professional practice, I have provided expert testimony and advisory services in dispute matters pertaining to financial damages and other complex financial and accounting issues.

I am a former Partner with Deloitte Financial Advisory Services LLP and was the Professional Practice Director for the Midwest and North Central regions responsible for risk management, conflicts, independence rules, and technical accounting. I am one of the authors of the American Institute of Certified Public Accountants (“AICPA”) Practice Aid on Mergers and Acquisition Disputes.

I am a Certified Public Accountant licensed in the state of Illinois. In addition, I have earned two specialized credentials from the AICPA: I am Certified in Financial Forensics and am a Chartered Global Management Accountant. A complete copy of my resume summarizing my qualifications and professional experience is attached hereto.¹

B. Scope of Engagement

A&M DI was retained by Covington & Burling LLP on behalf of its client, McKesson Corporation, to serve as expert witness with respect to the National Prescription Opiate Litigation (MDL No. 2804). My report is submitted on behalf of McKesson and certain other defendants (collectively, the “Defendants”).² A&M DI performed its engagement pursuant to the AICPA’s Standards on Consulting Services.

¹ See Appendix 1 – Resume of Matthew G. Bialecki.

² These defendants may change but currently include AmerisourceBergen Drug Corporation, Cardinal Health, Inc., CVS Indiana, LLC, CVS Rx Services, Inc., Walgreen Co., Walgreen Eastern Co., Inc., HBC Service Company, and H. D. Smith, LLC f/k/a H. D. Smith Wholesale Drug Company.

HIGHLY CONFIDENTIAL

I have been asked to quantify past costs paid for by the counties relating to prescription opioid abuse beginning in 2006 (referred to as “prescription opioid costs”) with respect to the matters *The County of Cuyahoga, Ohio et al. vs. Purdue Pharma L.P. et al.* and *The County of Summit, Ohio et al. vs. Purdue Pharma L.P. et al.* (collectively, the “Complaints”) (The County of Cuyahoga, Ohio et al. and The County of Summit, Ohio et al. collectively, the “Plaintiffs”).³ In addition and in the alternative, I quantified past costs that were or could have been paid for by Plaintiffs related to opioid abuse more generally beginning in 2006 (referred to as “general opioid costs”). Although I understand the allegations in this case to concern allegations of improper marketing and distribution of prescription opioids, I have conducted the aforementioned analysis of “general opioid costs” in the event that liability is awarded beyond the costs of damages associated with prescription opioid costs. I was not engaged to determine the extent to which any identified opioid-related costs were caused by any party or non-party in this action, nor do I have an opinion on such. I also express no opinion on whether any of the costs I identify, including compensation and other internal costs, are legally recoverable as damages, particularly when sought by a governmental entity.

I have also been asked to respond to certain opinions and assertions in the March 25, 2019 report of Thomas McGuire regarding the “Damages to Bellwethers” (the “McGuire Report”), certain assertions of the March 25, 2019 report of David Cutler (the “Cutler Report”), and certain assertions related to abatement presented in various other Plaintiffs’ expert reports.

C. Compensation

A&M DI is compensated for its services on an hourly basis and is being reimbursed for direct expenses. My hourly rate for this matter is \$700. The payment of fees is not contingent on any particular outcome or testimony.

D. Documents and Information Considered

In the formation of my opinions, I have relied upon certain documents and information including relevant case pleadings, production documents, deposition testimony, publicly

³ I use the term opioid and opiate interchangeably throughout my report. Additionally, “opioid abuse” as referenced in my report is inclusive of opioid dependency.

HIGHLY CONFIDENTIAL

available information, and the Plaintiffs' Reports. A listing of documents and information considered in forming the opinions in my report is attached as an appendix to this report.⁴

II. SUMMARY OF OPINIONS

My opinions are reflected throughout this report. However, for the benefit of the readers of the report, I summarize certain key opinions here. All of the opinions in this report are based on the analyses that I performed (with the assistance of others at A&M DI working under my direction), as well as my skills, knowledge, experience, education, and training. Certain key opinions include:

- Total maximum past costs that were or could have been paid for by Cuyahoga County related to prescription opioid abuse and, more generally, opioid abuse are as follows:

Division	Maximum Direct Costs		Maximum Incremental Costs		Maximum Total Costs that Could be Related to Prescription and General Opioid Abuse
	Prescription	General	Prescription	General	
ADAMHS Board	\$ -	\$ 2,235,174	\$ -	\$ 1,080,231	\$ 3,315,405
Children and Family Services					
Office of the Prosecutor	-	100,000	-	-	100,000
Office of the Public Defender	-	-	-	-	-
Court of Common Pleas	-	3,027,542	-	-	3,027,542
Juvenile Court	-	317,793	-	122,760	440,553
Sheriff's Department	35,191	-	-	-	35,191
County Jail	-	-	-	-	-
Medical Examiner	-	2,636,996	-	-	2,636,996
Division Unknown	5,485	14,047	-	N/A	19,533
	\$ 40,676	\$ 8,331,553	\$ -	\$ 1,202,991	\$ 9,575,220

Note 1: Due to the unavailability of certain Cuyahoga County financial records for 2018, my calculation of maximum past costs for Cuyahoga County is limited, in part, to the period 2006 to 2017.

Note 2: At this time I have not analyzed Children and Family Services. Pursuant to the Court's recent rulings, I will supplement my report to include an analysis of Children and Family Services upon receipt of the underlying case files from Plaintiffs.

- Total maximum past costs that were or could have been paid for by Summit County related to prescription opioid abuse and, more generally, opioid abuse are as follows:

⁴ See Appendix 2 – Documents and Information Considered.

HIGHLY CONFIDENTIAL

Division	Maximum Direct Costs		Maximum Incremental Costs		Maximum Total Costs that Could be Related to Prescription and General Opioid Abuse
	Prescription	General	Prescription	General	
ADM Board	\$ -	\$ 7,078,148	\$ -	\$ -	\$ 7,078,148
Children Services					
Prosecutor's Office	-	-	-	-	-
Court of Common Pleas	-	-	-	467,259	467,259
Juvenile Court	-	-	-	1,388,319	1,388,319
Sheriff's Office	166,667	281,034	-	-	447,701
County Jail	-	237,990	-	-	237,990
Alternative Corrections	-	-	-	-	-
Adult Probation Department	-	-	-	-	-
Medical Examiner	-	479,016	-	-	479,016
	\$ 166,667	\$ 8,076,188	\$ -	\$ 1,855,578	\$ 10,098,433

Note 1: My calculation of maximum past costs for Summit County are for the period 2006 to 2018.

Note 2: At this time I have not analyzed Children Services. Pursuant to the Court's recent rulings, I will supplement my report to include an analysis of Children Services upon receipt of the underlying case files from Plaintiffs.

- The McGuire Report is flawed and should be rejected for reasons including, but not limited to, his reliance on the Cutler Report.
- Many of the Plaintiffs' proposed abatement programs are already in existence or have been proposed for adoption and any lack of adoption does not appear to be tied to financial constraints.

III. BACKGROUND

Opium has been around thousands of years and the opium poppy has been reported as one of the oldest medicinal plants in recorded history.⁵ By 1900, an estimated 300,000 people were addicted to opioids in the United States and many doctors prescribed opioids solely to prevent their patients from suffering withdrawal.⁶ Due to concerns about their addictive properties, prescription opioids have usually been regulated at the federal level as Schedule II controlled substances by the United States Drug Enforcement Administration since 1970.⁷ Since mid-2013, synthetic opioids such as fentanyl and carfentanil have been increasingly involved in

⁵ See <https://www.ncbi.nlm.nih.gov/pubmed/17152761>.

⁶ See Cuyahoga County Second Amended Corrected Complaint, para. 100.

⁷ See Cuyahoga County Second Amended Corrected Complaint, para. 103.

HIGHLY CONFIDENTIAL

drug overdose deaths as a result of their higher potency and cheaper cost to manufacture than both prescription opioids and heroin.^{8,9}

In May 2018, Cuyahoga and Summit Counties both filed a corrected Second Amended Complaint seeking the recovery of damages and the means for abatement as a result of Defendants' alleged misconduct. Specifically, the Plaintiffs' allege that "opioid use, addiction, abuse, overdose and death has had severe and far-reaching public health, social services, and criminal justice consequences, including the fueling of addiction and overdose from illicit drugs such as heroin."¹⁰

IV. COMPARISON OF REPORTS

On March 25, 2019, the Plaintiffs' expert, Thomas McGuire, issued a report regarding the "Damages to Bellwethers." McGuire did not believe it was necessary to identify specific costs from actual records, but rather, uses what he refers to as "standard methods from microeconomics [to] allow [him] to reliably estimate past costs".¹¹ In fact, McGuire was asked repeatedly at his deposition to explain whether his approach relied on any accounting records or budget requests. McGuire testified:

Q: Are you able to point me to any accounting records or budget requests from either county which documented any reallocation of resources, either of employee time or other recourses, from one area to be redirected to opioid-related activities?

A: And I regard it to be an important question, since it was asked so many times. And the answer is the same: that the purpose of my report was to identify the opioid-related spending of the various divisions in the bellwether governments for various years, and that's what I did. The interpretation of that spending is economic opportunity costs. That tells me what I need to know in order to answer my assignment. It was not necessary for me to know how

⁸ See https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_03-508.pdf, Figure 1.

⁹ Additionally, CNN Health analysts recently labeled fentanyl as "the deadliest drug in America" (see <https://www.cnn.com/2018/12/12/health/drugs-overdose-fentanyl-study/index.html>).

¹⁰ See Cuyahoga County Second Amended Corrected Complaint, para. 19 and Summit County Corrected Second Amended Complaint, para. 20.

¹¹ See McGuire Report, para. 10.

HIGHLY CONFIDENTIAL

else the funds might have been used and what other possible desired targets that the bellwether divisions had to for those funds. So, it was not necessary, and I didn't do it.¹²

In contrast to McGuire's approach, I researched, and wherever it was possible, quantified the actual past costs that were or could have been paid for by the counties related to prescription and general opioid abuse. I quantify actual past costs by performing a detailed review of the budgets and annual financial reports of the counties, the available underlying county and "affected division" accounting and financial records, and by applying specific and general opioid-related search terms across the entire Cuyahoga County and Summit County production of documents made available to me.

Tables IV-1 and IV-2 highlight the differences between my calculations and McGuire's estimates of past opioid costs (not including children services costs)¹³ for Cuyahoga and Summit Counties.¹⁴

Table IV-1: Comparison of Maximum Prescription Opioid Costs

Expert	Past Prescription Opioid Costs	
	Cuyahoga	Summit
Bialecki	\$ 40,676	\$ 166,667
McGuire	Not Provided	Not Provided

Note 1: The costs presented for Bialecki include both direct costs and incremental costs.

Note 2: The cost presented for Bialecki for Cuyahoga County is limited to the period 2006 through 2017 as a result of the county's failure to provide detailed expenditure records for 2018. The cost presented for Bialecki for Summit County is for the period 2006 through 2018.

Note 3: This table does not include costs for children services, which will be provided by a later supplement.

¹² See deposition of Thomas McGuire dated April 30, 2019, pp. 835:20-840-22.

¹³ We are waiting for case file evidence from the counties in respect of children services costs, and will address those costs by way of a separate supplement to this report.

¹⁴ Due to the unavailability of certain Cuyahoga County financial records for 2018, my calculation of past opioid costs for Cuyahoga County is limited, in part, to the period 2006 to 2017.

HIGHLY CONFIDENTIAL

Table IV-2: Comparison of Maximum Prescription and General Opioid Costs

Expert	Past Prescription and General Opioid	
	Cuyahoga	Summit
Bialecki	\$ 9,255,583	\$ 10,098,433
McGuire	\$ 174,156,025	\$ 80,519,340

Note 1: The costs presented for Bialecki include both direct costs and incremental costs.

Note 2: The costs presented for both Bialecki and McGuire for Cuyahoga County are limited to the period 2006 through 2017 as a result of the county's failure to provide detailed expenditure records for 2018. The costs presented for both Bialecki and McGuire for Summit County are for the period 2006 through 2018.

Note 3: McGuire's 2018 opioid costs for Summit County were estimated based on his 2017 opioid-related percentages.

Note 4: This table does not include costs for children services, which will be provided by a later supplement.

My calculations are more accurate, because, as stated above, I quantify actual past costs by performing a detailed review of the budgets and annual financial reports of the counties, the available underlying county and "affected division" accounting and financial records, and by applying specific and general opioid-related search terms across the entire Cuyahoga County and Summit County production of documents made available to me. Further, despite the large differences between my calculations and McGuire's estimates of past general opioid costs, my calculations (specifically, the calculations presented in Table IV-2) are conservative because they include costs related to heroin, an illicit drug existent long before prescription opioids were introduced. My calculations are also conservative because they include costs related to illicit fentanyl, which is neither manufactured nor distributed by any defendant in this action, but which has plagued both counties in recent years. Additionally, my calculation of general opioid costs likely includes costs related to individuals who abused illegal opioids, but never used or abused prescription opioids. It is also likely my calculation of general opioid costs includes polydrug users, which are users of multiple substances (e.g., cocaine and heroin).

My methodology to calculate past opioid costs is also consistent with the Opinion and Order previously issued by Judge Polster.¹⁵ Specifically, the Opinion and Order stated:

Plaintiffs have been forced to expend vast sums of money far exceeding their budgets to attempt to combat the opioid epidemic.

¹⁵ See Opinion and Order dated December 19, 2018 (pp. 19-20) in the matter The County of Summit, Ohio et al. vs. Purdue Pharma L.P. et al.

HIGHLY CONFIDENTIAL

The Court thus concludes that while Cities and Counties cannot recover ordinary costs of services provided in their capacity as a sovereign, Cities and Counties should be able to recover costs greatly in excess of the norm....

Certainly, some of Plaintiffs' alleged costs are costs associated with the ordinary provision of services to their constituents in their capacity as sovereigns.... These costs cannot be recovered unless Plaintiffs can prove they go beyond the ordinary provision of those services.

It is also of importance to note that my calculation of past opioid costs for the counties does not consider the extent to which any identified opioid costs were caused by any party or non-party in this action. Therefore, any comparison of McGuire's estimated damages for the counties and my past opioid costs is misrepresented. McGuire blindly applies various "estimates of the percent of harms attributable to the defendants' misconduct presented in the Cutler Report."¹⁶ Notably, to this point, McGuire testified:

Q: Okay. So do you agree that if the defendant distributors in this case had only and exclusively acted in a way that you would consider to be compliant with the law and had done nothing allegedly improper, that there would still be damages in this case?

A: I'm not sure.¹⁷

If the Court determines that any of the Defendants are liable for past damages of Cuyahoga and Summit Counties, my calculation of past opioid costs would be substantially reduced by any factor of harm caused by non-labile Defendants and harms caused by non-parties or Plaintiffs themselves.

¹⁶ See McGuire Report, para. 11.

¹⁷ See deposition of Thomas McGuire dated April 30, 2019, pp. 821:21-822:4.

HIGHLY CONFIDENTIAL

V. OPINIONS AND BASES FOR OPINIONS

A. Methodology to Calculate Past Opioid Costs

Based on the allegations set forth by the Plaintiffs in the Complaints, I undertook the following analysis to calculate past opioid costs:

- 1) I sought to identify prescription opioid costs to the extent possible given that the Defendants' alleged misconduct was in relation to prescription opioids. However, Plaintiffs in most instances failed to provide documentation of such costs. Therefore, I also sought for the possible benefit of the Court, in the event that it finds damages warranted beyond the harms caused solely by prescription opioid abuse, and for comparison to the estimates by Plaintiffs' experts, to more broadly identify general opioid costs (i.e., opioid costs not specific to illicit or prescription opioids).
- 2) As my starting point, I reviewed the available information to identify specific costs paid for by the counties that could be directly identified as being related to the counties' efforts to prevent, treat, combat or otherwise respond to opioid abuse ("direct costs").
- 3) To identify direct costs, I reviewed the budgets and audited financial reports of the counties, the available underlying county and "affected division" accounting and financial records, and I applied search terms across the entire Cuyahoga County and Summit County production of documents made available to me. I also reviewed deposition testimony of county personnel for context. I viewed costs as reflected in contemporaneous accounting and financial records as the most reliable evidence of actual costs.
- 4) Although less precise than the direct cost analysis, I next analyzed the expenditures of the nineteen "affected divisions" to determine if there were incremental increases in county-funded expenditures that could be related to the counties' efforts to respond to opioid abuse, which such incremental expenditures I did not otherwise identify in my search for direct costs. This incremental expenditure methodology is less precise than the direct cost methodology because the reason or cause of such incremental expenditures can be less clear and subject to judgment.

HIGHLY CONFIDENTIAL

- 5) In furtherance of this effort, I quantified incremental increases in county-funded expenditures by identifying when the incremental expenses began and determining what those expenses would have been “but for” the counties’ efforts (“incremental costs”).
- 6) For the possible benefit of the Court, I have summed my calculations for each of the counties in three alternative ways: (1) direct costs for each of the “affected divisions” as related to prescription opioids to provide a total maximum cost calculation of dollars directly spent by the counties related to prescription opioid abuse, (2) direct plus incremental costs for each of the “affected divisions” as related to prescription opioids to provide a total maximum cost calculation of all dollars that the evidence shows were, in the case of direct costs, or could have been, in the case of incremental costs, spent by the county related to prescription opioid abuse, and (3) direct plus incremental costs for each of the “affected divisions” to provide a total maximum cost calculation of all dollars that the evidence shows were, in the case of direct costs, or could have been, in the case of incremental costs spent by the county related to both prescription and general opioid abuse.

My methodology to calculate past opioid costs is further described in the sections below.

1. Identification of Prescription Opioid Costs

The first step in my analysis was to identify prescription opioid costs to the extent possible given that the Defendants’ alleged misconduct was in relation to prescription opioids.¹⁸ However, based on my review of the available information, I found little to no evidence of such costs or any attempt by the counties to separately account or otherwise segregate its cost related to prescription opioid abuse. In fact, many of the counties’ representatives and division personnel testified that the counties did not maintain any records to keep track of their costs related to the opioid crisis, let alone relating to prescription opioids. Additionally, the counties’ representatives and division personnel testified that they could not even suggest a methodology to quantify their costs related to the opioid crisis. Such testimony included:

¹⁸ See Section V.A.2 (“Identification of Direct Costs”) for further detail of my procedures to identify opioid costs including those specific to prescription opioids.

HIGHLY CONFIDENTIAL

- Ralph Piatak (former Director of Finance ADAMHS, Cuyahoga County):

Q. Did you maintain records that kept track of the cost incurred by Cuyahoga County to address the opioid epidemic?

A. No, I did not.

Q. Do you recall if anyone reported to you that maintain such records?

A. I would say most likely not.”¹⁹

- Maggie Keenan (Director of the Office of Budget Management, Cuyahoga County):

Q. How would you go about, as a process matter, trying to determine which expenditures in the department of Children and Family Services, are specifically tied to the opiate crisis?

A. I would rely on an expert for that.”²⁰

- Trevor McAleer (Legislative Budget Advisor, Cuyahoga County):

Q. Have you made any efforts to quantify the total financial impact of the opioid crisis on Cuyahoga County?

A. I’ve thought about it. I don’t know if that counts as your definition of attempt it. I have not put anything then pen to paper to try to list it out.”²¹

- Cynthia Weiskittel (Director of Children and Family Services, Cuyahoga):

Q. And given some of the data limitations that we’ve talked about, it may be impossible for anybody to offer any such damages calculations relating to your division, correct?

A. I don’t know that. I mean, they could look at our budget. There are smart people out there that can figure out that kind of thing.”²²

¹⁹ See deposition of Ralph Piatak dated January 14, 2019, pp. 29:21-30:4.

²⁰ See deposition of Maggie Keenan dated December 12, 2018, pp. 290:13-20.

²¹ See deposition of Trevor McAleer dated January 10, 2019, p. 306:15-21.

²² See deposition of Cynthia Weiskittel dated November 13, 2018, pp. 354:22-355:5.

HIGHLY CONFIDENTIAL

- Brian Nelsen (Director of Finance and Budget, Summit County):

Q. Sir, so you've said that in all the efforts to identify and quantify expenses incurred by Summit County in connection with the opioid problem, there have been efforts to identify opioid-related expenses, right?

A. Correct.

Q. But there's been no effort to separate out opioid-related expenses by drug?

A. Correct.

Q. Has there ever been an effort to separate out or allocate those opioid-related expenses based on which company made them, which company distributed them, or which company provided them to individuals?

A. There has not.²³

- Darin Kearns (Deputy Director of Fiscal Services, Summit County):

Q. To your knowledge, had anyone prepared any analysis of the financial impact of opioids on Summit County Children Services before you came on board in June of 2016?

A. Not to my knowledge.²⁴

- Shane Barker (Jail Administrative Captain, Summit County):

Q. How would you attempt to quantify the proportion of jail expenses attributable to the opioid epidemic?

A. ...I'm not a...fiscal guy....I wouldn't know where to begin.

Q. Do you believe it's possible to undertake that exercise?

A. I think somebody could probably do it. Probably not me.

²³ See deposition of Brian Nelsen dated December 19, 2018, pp. 357:16-358:8.

²⁴ See deposition of Darin Kearns dated December 5, 2018, p. 79:4-8.

HIGHLY CONFIDENTIAL

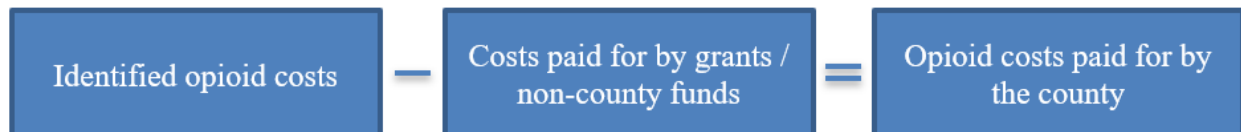
Q. And what information do you think would be required in order to undertake that analysis?

A. Somebody would have to know an awful lot about the jail to do it, and I don't know what all it would be, what would be required.²⁵

Despite the counties' lack of effort to quantify the impact of the opioid crisis, and because the counties did not separately account for or otherwise segregate their costs related to prescription opioid abuse, I sought to identify costs paid for by the counties related to all opioid abuse to benefit the Court in the event it finds damages warranted beyond the harms caused solely by prescription opioid abuse.

2. Identification of Direct Costs

As my starting point to identify opioid costs (prescription and general), I reviewed the available information to identify specific costs paid for by the counties that could be directly identified as being related to the counties' efforts to prevent, treat, combat or otherwise respond to opioid abuse. This technique is well accepted in the accounting profession and does not require any unnecessary speculation or unreasonable assumptions.²⁶ My calculation of direct costs can be summarized as follows:²⁷



My starting point to identify direct costs was to review the budgets and audited financial reports of the counties.²⁸ I noted, however, that these financial reports contain few references to

²⁵ See deposition of Shane Barker dated November 28, 2018, p. 307:1-21.

²⁶ Para. 148 of AICPA Practice Aid 06-4 states, "A relatively straightforward method of calculating damages is based upon the out-of-pocket costs or investment the plaintiff has incurred in the project. Under this method, the out-of-pocket costs incurred related to the project are aggregated and become the measure of damages." What are referred to as "out-of-pocket costs" in the prior sentence are what I have calculated as direct costs in this report.

²⁷ My calculation of direct costs was limited to costs incurred by the "affected divisions" in excess of their ordinary provision of service and other costs where the division is unknown.

²⁸ To the extent available, the budgets and annual reports I reviewed for Cuyahoga County include the Budget Plan, the Administrator's/Executive's Recommended Budget, and the Comprehensive Annual Financial Report and attached Single Audit report. To the extent available, the budgets and annual reports I reviewed for Summit County include the Operating Budget and Comprehensive Annual Financial Report.

HIGHLY CONFIDENTIAL

opioid costs.²⁹ As such, I sought to identify and review other underlying county and “affected division” accounting and financial records to identify opioid costs. In my review of these records, I noted that some contain references to general opioid costs (especially in more recent years). For example, I identified expense accounts established for general opioid costs in accounting data produced by Summit County.³⁰ However, for most of the underlying county and “affected division” financial records, opioid costs were not separately accounted for or otherwise segregated. Therefore, to supplement my review of the available financial records, I applied search terms across the entire set of Cuyahoga County and Summit County production documents available to me. My search terms included both general opioid-related terms such as “opioid,” “naloxone,” and “heroin,” and other specific terms such as “Vivitrol” and “DAWN.”³¹ In some instances, my review of the accounting and financial records, and production documents only yielded a general reference to an opioid cost and not the cost amount. To the extent I could not otherwise identify the cost amount within the available information, I prepared an estimate of the cost amount, if possible, based on the best evidence available.³²

In my identification of opioid costs (prescription and general), I also sought to determine the source of funds used to pay for the cost. If I was able to determine the source of funds to be, at least in part, a grant or other non-county funds, I deducted the amount of the grant or non-county funds such as state or federal funding. My rationale for deducting the amount of the opioid costs paid for by grant or other non-county funds is that regardless of the available use of the grant or other non-county funds, the opioid costs were not the burden of the Plaintiffs.³³ In most instances, however, it is not possible to determine how an opioid cost was ultimately paid for due to the nature of the Plaintiffs’ accounting and financial records and the absence of funding information in the document(s) that reference the opioid cost. In the instances where I

²⁹ See Section V.B (“Overview of County Governments”) for further detail of my identified opioid references in the budgets and annual financial reports of the counties.

³⁰ See SUMMIT_002054603.

³¹ See Appendix 3 – Search Terms.

³² See Sections V.C (“Analysis of the ‘Affected Divisions’ of Cuyahoga County”) and V.D (“Analysis of the ‘Affected Divisions’ of Summit County”) for further detail of my identified opioid costs for Cuyahoga County and Summit County, respectively.

³³ Additionally, I would assume to the extent discretionary grants were used to pay for opioid costs, the grants were evenly distributed across all of the county’s costs, not solely opioid costs.

HIGHLY CONFIDENTIAL

was not able to determine the source of funds used to pay for the opioid cost, I included the cost in my calculation of direct costs to be conservative and for the benefit of the Plaintiffs.

3. Identification and Analysis of Incremental Costs

As mentioned, I view the direct cost methodology to be the most reliable because a determination of the cause of incremental costs can be less precise and subject to judgment. Nevertheless, to be conservative, I next analyzed the expenditures of the nineteen “affected divisions” identified by McGuire to determine if there were any incremental increases in county-funded expenditures that could be related to the counties’ efforts to respond to opioid abuse which I did not otherwise identify in my search for direct costs.³⁴ These nineteen “affected divisions” were as follows:

County	Affected Divisions
Cuyahoga	<ol style="list-style-type: none"> 1. Alcohol, Drug Addiction & Mental Health Services (“ADAMHS”) Board 2. Children and Family Services 3. Office of the Prosecutor 4. Office of the Public Defender 5. Court of Common Pleas 6. Juvenile Court 7. Sheriff’s Department 8. County Jail 9. Medical Examiner
Summit	<ol style="list-style-type: none"> 1. Alcohol, Drug Addiction & Mental Health Services (“ADM”) Board 2. Children Services 3. Prosecutor’s Office 4. Court of Common Pleas 5. Juvenile Court 6. Sheriff’s Office 7. County Jail 8. Alternative Corrections 9. Adult Probation Department 10. Medical Examiner

I analyzed the expenditures of the “affected divisions” in total, by cost category (e.g., compensation and benefits and non-compensation costs), and by line item (e.g., maintenance &

³⁴ See McGuire Report, para 9 and Table IV.1 (“Bellwether Divisions Affected by Opioids”).

HIGHLY CONFIDENTIAL

repair). To the extent I identified any fluctuations in expenditures, I reviewed the available information related to the “affected division” to determine if the fluctuation could be related to the counties’ efforts related to opioid abuse. This information included the budgets and annual reports of the counties, annual reports of the “affected divisions” (to the extent available), weekly/monthly/quarterly management reports, board meeting minutes, accounting data, and other specific data sets (e.g., criminal charges for the Office of the Prosecutor). I also reviewed depositions of county personnel for context. If the fluctuation in expenditures related to compensation and benefits, I also analyzed the change in headcount.

Based on my analysis and review of the available information, if there were incremental increases in county-funded expenditures that could be related to the counties’ efforts to respond to opioid abuse, I quantified the incrementality by determining when the incremental expenses began and what those expenses would have been “but for” the counties’ efforts.³⁵

4. Calculation of Maximum Past Opioid Costs

My calculation of maximum past opioid costs represents the sum of my identified direct costs and incremental costs of the “affected divisions” (and for direct costs, where the division is unknown). The detail of my analysis to calculate maximum past opioid costs is described in Section V.E.

In certain instances my methodology to identify opioid costs resulted in the identification of no direct or incremental costs for an “affected division” (e.g., Cuyahoga County Office of the Public Defender). In these instances, I do not believe it is appropriate to allocate a portion of the “affected divisions” total costs (or sub-set of total costs) to calculate past opioid costs. Any attempt by me to do so could not be done with reasonable certainty due to the lack of detailed records within the available information.

³⁵ My calculation of incremental costs was limited to incremental expenses in excess of the ordinary provision of services of the “affected divisions.”

HIGHLY CONFIDENTIAL

B. Overview of the County Governments**1. Cuyahoga County**

Cuyahoga County covers an area of 460 square miles, has a population of 1.2 million, and houses a collection of 57 cities and villages, including the City of Cleveland, the county seat.³⁶ In 2017, the county employed 7,397 persons (compared to 9,295 persons in 2006).³⁷ The county provides many services to its citizens including tax collection and distribution, civil and criminal justice systems, public safety, health assistance, human services, road and bridge maintenance, and other general and administrative support services.³⁸

Municipalities within the county, including the City of Cleveland, provide public safety, including police and fire functions; construction, maintenance, and repair of streets and sidewalks; certain sanitation and health activities; recreation, including parks, playgrounds, and swimming pools; certain public service enterprises such as collection, recycling, and disposal of solid wastes and operation of sewer and water systems, airports, and hospitals; and certain planning and zoning functions.³⁹

In 2017, the county recorded \$1.326 billion in total governmental revenues (compared to \$1.421 billion in 2006).⁴⁰ The county derives the majority of its revenues through intergovernmental revenues (\$466 million), property taxes (\$354 million), and sales tax collections (\$262 million).⁴¹ Intergovernmental revenues include federal grants, state grants, and other shared revenue sources.⁴² Intergovernmental revenues represented 35% of total governmental revenues in 2017.

³⁶ See Cuyahoga 2017 CAFR, p. viii.

³⁷ See Cuyahoga 2006 CAFR, p. 145. and Cuyahoga 2017 CAFR, p. S36.

³⁸ See Cuyahoga 2017 CAFR, p. viii.

³⁹ See Cuyahoga 2017 CAFR, p. viii.

⁴⁰ See Cuyahoga 2006 CAFR, pp. 24-25 and Cuyahoga 2017 CAFR, pp. 24-25.

⁴¹ See Cuyahoga 2017 CAFR, pp. 24-25.

⁴² See Cuyahoga 2017 CAFR, p. 6.

HIGHLY CONFIDENTIAL

Although the county has experienced financial challenges, total revenues have increased since 2013.⁴³ Cuyahoga County's treasurer described the county's financial challenges as follows:

The Cuyahoga County has the -- in general or in a global sense, the same challenges I think that are endemic in western cities, a smaller tax base, aging infrastructure, population loss.⁴⁴

The county currently prepares a two-year (or biennial) budget plan. The biennial budget plan is produced by the Office of Budget and Management ("OBM"), who is responsible for the analysis and interpretation of financial matters affecting the county. The county also prepares a Comprehensive Annual Financial Report ("CAFR"). The CAFR is the county's final audited financial results and includes the independent auditors' report, basic financial statements, and supplementary information. Additionally, the CAFR is typically accompanied by a Single Auditor report prepared by the Ohio Auditor of State.

The budgets and CAFR are critical to understanding the county's finances. The transmittal letter of the Fiscal Officer attached to the CAFR purports the CAFR "include[s] all disclosures necessary to enable the reader to gain an understanding of the County's financial activities."⁴⁵ It is notable, however, that these documents do not significantly discuss the financial impact of the opioid crisis to the county. In fact, the first reference to opioids in the county's budgets and Single Audits/CAFRs was 2014 and 2012, respectively. Further, the county did not even acknowledge the opioid epidemic as a "strategic priority" in its CAFR until 2017.⁴⁶ Tables V.B.1-1 and V.B.1-2 are summaries of the opioid-related references in the county's budgets and Single Audits/CAFRs from 2006 to present.

⁴³ Total revenues in 2013 were \$1.224 billion (see Cuyahoga 2013 CAFR, pp. 22-23), total revenues in 2014 were \$1.257 billion (see Cuyahoga 2014 CAFR, pp. 22-23), total revenues in 2015 were \$1.265 billion (see Cuyahoga 2015 CAFR, pp. 26-27), total revenues in 2016 were \$1.325 billion (see Cuyahoga 2016 CAFR, pp. 24-25), and total revenues in 2017 were \$1.326 billion (see Cuyahoga 2017 CAFR, pp. 24-25).

⁴⁴ See deposition of W. Christopher Murray dated February 21, 2019, pp. 382:22-383:1.

⁴⁵ See Cuyahoga 2017 CAFR, p. vi.

⁴⁶ See Cuyahoga 2017 CAFR, p. xii.

HIGHLY CONFIDENTIAL

Table V.B.1-1: Opioid-Related References – Cuyahoga Budgets

Document Type	Period	Issue Count	Instance Count	Division Instance Count	ADAMHS Board	Opioid-Related References							
						Children and Family Services	Office of the Prosecutor	Office of the Public Defender	Court of Common Pleas	Juvenile Court	Sheriff's Department	County Jail	Medical Examiner
Budget Plan	2006												
	2007												
	2008												
	2009												
	2010												
	2011												
	2012 - 2013												
	2014 - 2015	2	2	2	-	-	-	-	1	-	-	-	1
	2016 - 2017	3	4	4	-	-	-	-	-	-	1	-	3
	2018 - 2019	1	2	2	-	-	-	-	-	-	-	-	2
Subtotal		6	8	8	-	-	-	-	1	-	1	-	6
Recommended Budget	2006												
	2007												
	2008												
	2009												
	2010												
	2011												
	2012 - 2013												
	2014 - 2015												
	2016 - 2017	1	2	2	-	-	-	-	-	-	-	-	2
	2018 - 2019	6	7	10	1	2	-	-	1	-	-	1	5
Subtotal		7	9	12	1	2	-	-	1	-	-	1	7
Total		13	17	20	1	2	-	-	2	-	1	1	13

Note 1: Table based on the search terms “Opiate,” “Opioid,” “Opium,” “Heroin,” “Naloxone,” “Naltrexone,” “Narcan,” “Suboxone,” “Buprenorphine,” “Methadone,” “Vivitrol,” “Carfentanil,” “Fentanyl,” “DAWN,” “Subutex,” “Sublocade,” “Probuphine,” “Evzio,” “Bunavail,” “Zubsolv,” “Revia,” “Dolophine,” and “Methadose.”

Note 2: “Issue Count” represents the count of opioid-related issues discussed in the financial report (i.e., not individual instances of search terms).

Note 3: “Instance Count” represents the count of individual instances search terms appeared in the financial report.

Note 4: “Division Instance Count” represents the count of times the “affected division” was associated with individual instances of search terms appearing in the financial report (e.g., a specific search term may correspond to multiple divisions for a unique issue; therefore, the search term would be listed as a division instance count for each division it relates to).

Sources: Cuyahoga 2006-2018/2019 Budget Plans; Cuyahoga 2006-2018/2019 Recommended Budgets.

HIGHLY CONFIDENTIAL

Table V.B.1-2: Opioid-Related References – Cuyahoga Single Audits and CAFRs

Opioid-Related References													
Document Type	Period	Issue Count	Instance Count	Division Instance Count	ADAMHS Board	Children and Family Services	Office of the Prosecutor	Office of the Public Defender	Court of Common Pleas	Juvenile Court	Sheriff's Department	County Jail	Medical Examiner
Single Audit	2006	No opioid-related references											
	2007												
	2008												
	2009												
	2010												
	2011												
	2012	1	2	2	-	-	-	-	2	-	-	-	-
	2013	2	3	3	-	-	-	-	3	-	-	-	-
	2014	3	4	4	1	-	-	-	3	-	-	-	-
	2015	2	3	3	-	-	-	-	3	-	-	-	-
2016	1	4	4	4	4	-	-	-	-	-	-	-	
2017	2	4	4	4	4	-	-	-	-	-	-	-	
Subtotal		11	20	20	9	-	-	-	11	-	-	-	-
CAFR	2006	No opioid-related references											
	2007												
	2008												
	2009												
	2010												
	2011												
	2012	2	4	4	-	-	-	-	4	-	-	-	-
	2013	2	4	4	-	-	-	-	4	-	-	-	-
	2014	2	4	4	-	-	-	-	4	-	-	-	-
	2015	2	2	2	-	-	-	-	2	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	
2017	1	3	3	-	2	-	-	-	-	-	1	-	
Subtotal		9	17	17	-	2	-	-	14	-	-	1	-
Total		20	37	37	9	2	-	-	25	-	-	1	-

Note: See Notes 1-4 at Table V.B.1-1.

Sources: Cuyahoga 2006-2017 Single Audits and CAFRs.

2. Summit County

Summit County covers an area of 419 square miles, has a population of 541,781 and houses a collection of 31 cities and townships, including Akron, the county seat.⁴⁷ In 2017, the county employed 3,032 persons (compared to 3,516 persons in 2006).⁴⁸ The county provides many services to its citizens including tax collection and distribution, civil and criminal justice systems, public safety, health assistance, human services, road and bridge maintenance, and other general and administrative support services.⁴⁹

⁴⁷ See Summit 2017 CAFR, p. v.

⁴⁸ See Summit 2006 CAFR, p. 138 and Summit 2017 CAFR, p. S-20.

⁴⁹ See Summit 2017 CAFR, p. v.

HIGHLY CONFIDENTIAL

In 2017, the County recorded \$413 million in total governmental revenues (compared to \$436 million in 2006).⁵⁰ The county derives the majority of its revenues through intergovernmental revenues (\$166 million), property taxes (\$46 million), and charges for services (\$50 million).⁵¹ Intergovernmental revenues include federal grants, state grants, and other shared revenue sources.⁵² Intergovernmental revenues represented 40% of total governmental revenues in 2017.

The “Great Recession hit Summit County” in 2009.⁵³ Consequently, to address declining revenues, the county enacted a Voluntary Separation Plan that offered early retirement incentives for county employees that agreed to end their employment.⁵⁴ Despite the economic downturn and funding cuts from the State of Ohio,⁵⁵ the County has experienced slow revenue growth since 2014.⁵⁶ In 2017 total revenues were still \$56 million less than they were in 2009.⁵⁷

Summit County currently produces a yearly operating budget plan. The yearly budget is prepared by the Department of Finance and Budget and then submitted to City Council “along with the goals of the various offices boards and commissions” for review and approval.⁵⁸ Summit County also prepares a CAFR each year, which represents the county’s final audited financial results and includes the independent auditor’s report, basic financial statements, and supplementary information.

The budgets and CAFR are critical to understanding the county’s finances. The transmittal letter of the Fiscal Officer attached to the CAFR purports the CAFR to include “all disclosures necessary to enable the reader to gain an understanding of the County’s financial

⁵⁰ See Summit 2006 CAFR, pp. 24-25 and Summit 2017 CAFR, pp. 26-27.

⁵¹ See Summit 2017 CAFR, pp. 26-27.

⁵² See Summit 2017 CAFR, p. 8.

⁵³ See 30(b)(6) deposition of Brian Nelsen dated January 24, 2019, p. 206:21-24.

⁵⁴ See Summit 2008 CAFR, p. 7.

⁵⁵ See 30(b)(6) deposition of Brian Nelsen dated January 24, 2019, p. 207:7-10.

⁵⁶ See Summit 2017 CAFR, Table 5 and Summit 2014 Operating Budget, p. 83.

⁵⁷ See Summit 2017 CAFR, Table 5.

⁵⁸ See Summit County 2018 Operating Budget, p. 28.

HIGHLY CONFIDENTIAL

activities.”⁵⁹ It is notable, however, that these documents do not significantly discuss the financial impact of the opioid crisis to the county. In fact, the first reference to opioids in the county’s budgets is 2012 and the county’s CAFRs does not reference opioids in any year. Tables V.B.2-1 and V.B.2-2 are summaries of the opioid-related references in the county’s budgets and CAFRs from 2006 to present.

Table V.B.2-1: Opioid-Related References – Summit Budgets

Document Type	Period	Opioid-Related References												
		Issue Count	Instance Count	Division Instance Count	ADM Board	Children Services	Prosecutor's Office	Court of Common Pleas	Juvenile Court	Sheriff's Office	County Jail	Alternative Corrections	Adult Probation	Medical Examiner
Operating Budget	2006	1	1	1	-	-	-	-	-	1	-	-	-	-
	2007													
	2008													
	2009													
	2010													
	2011													
	2012	3	12	12	12	-	-	-	-	-	-	-	-	-
	2013	6	18	18	18	-	-	-	-	-	-	-	-	-
	2014	4	11	11	11	-	-	-	-	-	-	-	-	-
	2015	1	1	1	-	-	-	-	-	1	-	-	-	-
	2016	1	1	1	-	-	-	-	-	1	-	-	-	-
	2017	5	8	8	2	1	4	-	-	1	-	-	-	-
	2018	8	12	12	2	1	4	2	-	1	-	-	-	2
	2019	6	10	12	2	-	5	2	-	1	-	-	2	-
Total		35	74	76	47	2	13	4	-	6	-	-	2	2

Note: See Notes 1-4 at Table V.B.1-1.

Sources: Summit 2006-2019 Operating Budgets.

Table V.B.2-2: Opioid-Related References – Summit CAFRs

Document Type	Period	Opioid-Related References												
		Issue Count	Instance Count	Division Instance Count	ADM Board	Children Services	Prosecutor's Office	Court of Common Pleas	Juvenile Court	Sheriff's Office	County Jail	Alternative Corrections	Adult Probation	Medical Examiner
CAFR	2006													
	2007													
	2008													
	2009													
	2010													
	2011													
	2012													
	2013													
	2014													
	2015													
	2016													
	2017													
Total		-	-	-	-	-	-	-	-	-	-	-	-	-

Note: See Notes 1-4 at Table V.B.1-1.

Sources: Summit 2006-2017 CAFRs.

⁵⁹ See Summit 2017 CAFR, p. iv.

HIGHLY CONFIDENTIAL

C. Analysis of the “Affected Divisions” of Cuyahoga County

1. ADAMHS Board

The Cuyahoga County ADAMHS Board (or ADAMHS)⁶⁰ is “responsible for the planning, funding and monitoring of public mental health and addiction treatment and recovery services delivered to the residents of Cuyahoga County.”⁶¹ ADAMHS does not directly provide any services, but contracts with local agencies as a safety net for those in need of critical mental health and addiction service treatment.

ADAMHS is a quasi-independent part of the county government that is partially funded from the health and human services levy.⁶² ADAMHS also receives funding from multiple non-local sources including federal and state funds.

The ADAMHS board is comprised of Addiction Services and Mental Health Services.

- **Addiction Services:** Funds addiction services for residents who suffer from substance abuse and dependency to alcohol or drugs such as cocaine, cannabis, or heroin/opioids. Addiction services include residential treatment, housing, counseling, prevention, and detoxification.⁶³
- **Mental Health Services:** Funds mental health services for residents who suffer from mental illness such as depression, anxiety, bipolar disorder, schizophrenia, and hoarding behaviors. These services include residential treatment, crisis intervention, peer support, and education.⁶⁴

The information I considered in my analysis of ADAMHS included, but was not limited to, the following:

- County Budgets and CAFRs

⁶⁰ On July 1, 2009, the Alcohol and Drug Addiction Services Board consolidated with the Community Mental Health Board to create the ADAMHS Board.

⁶¹ See <http://www.adamhscc.org/>.

⁶² See deposition of Ralph Piatak dated January 14, 2018, pp. 30:13-32:12.

⁶³ See ADAMHS Annual Report, 2017, p. 8.

⁶⁴ See ADAMHS Annual Report, 2017, p. 8.

HIGHLY CONFIDENTIAL

- ADAMHS annual reports
- ADAMHS budgets
- ADAMHS claims data
- ADAMHS funding and expenditure data reported to Ohio Department of Mental Health & Addiction Services (“Ohio MHAS”)
- Depositions and exhibits of relevant personnel
- Publicly available information

a) Identification of Direct Costs

Based on my review of the available information, I identified no direct costs related to prescription opioids for the ADAMHS Board. As stated above, although this case involves claims related to harm caused by prescription opioids, I have also analyzed costs associated with opioid abuse generally in the event that the Court finds damages warranted beyond the harms caused solely by prescription opioid abuse. Thus, regarding opioids generally, I identified total direct costs of \$2,235,174 for the ADAMHS Board.⁶⁵ These direct costs included the following:

- \$38,704 for Suboxone outpatient treatment expenditures in 2014.
- \$180,321 for new proposed core contracts with Stella Maris and Cleveland Treatment Center regarding the expansion of sober beds in 2015.
- \$41,965 for a Heroin Prevention Campaign in 2016.
- \$995,303 for Fentanyl Test Strip Program and Heroin Prevention Campaign in 2017.
- \$823,573 for the “Cuyahoga County & City of Cleveland Tackling Heroin Partnership” initiatives including Medication Assisted Treatment Based Services and Sober Beds, Ambulatory Detoxification Initiative, Recovery Supports, Medication (Vivitrol and Naloxone), and the Quick Response Protocol Pilot Initiative in 2017.
- \$132,451 for opiate conferences, Heroin Prevention Campaigns, and MAT/Suboxone/Vivitrol cash disbursement expenditures in 2011 through 2017.
- \$22,858 for Suboxone addiction services with St. Vincent Charity in 2017 through 2018.

⁶⁵ See Appendix 4 – Cuyahoga County Direct Costs.

HIGHLY CONFIDENTIAL

I found no evidence which indicates these direct costs were specific to prescription opioids.

Additionally, I identified \$5,383,007 of general opioid costs for the ADAMHS Board not paid for by the county.⁶⁶ These general opioid costs were paid for by the Mid-Biennium Review state funding allocations, Ohio Mental Health and Addiction Services, the City of Cleveland, and the Federal CURES Act grants. Since these general opioid costs were not the burden of the county, they are excluded from my total direct costs.

b) Identification and Analysis of Incremental Costs

Based on my review of the available information, I identified no incremental costs specifically relating to prescription opioids for the ADAMHS Board. As stated above, although this case involves claims related to harm caused by prescription opioids, I have also analyzed costs associated with opioid abuse generally in the event that the Court finds damages warranted beyond the harms caused solely by prescription opioid abuse. Thus, regarding opioids generally, I identified total incremental costs of \$1,080,231 for the ADAMHS Board. My analysis of incremental costs is presented below.

Table V.C.1-1 is a summary of expenditures and key metrics of the ADAMHS Board for the period 2006 through 2017.

Table V.C.1-1: Summary of Expenditures and Key Metrics

ADAMHS Board (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Δ (13-17)	% Δ (13-17)	CAGR (13-17)
Addiction Services				\$35.5	\$32.1	\$32.4	\$36.7	\$18.3	\$15.1	\$18.5	\$19.8	\$23.3	\$5.0	27.2%	6.2%
Mental Health Services	\$118.4	\$120.9	\$123.6	\$121.3	\$126.1	\$127.6	\$152.3	\$46.3	\$43.6	\$45.7	\$47.4	\$49.9	\$3.6	7.8%	1.9%
Total Costs				\$156.8	\$157.6	\$160.0	\$189.4	\$67.1	\$66.6	\$64.2	\$67.9	\$73.1	\$6.1	9.0%	2.2%
Addiction Services as % of Total Costs				22.6%	20.4%	20.2%	19.4%	27.3%	22.7%	28.8%	29.2%	31.8%	4.5%		
County Contribution (HHS Levy)	\$37.8	\$38.9	\$37.9	\$36.4	\$36.0	\$33.6	\$35.1	\$34.9	\$39.4	\$39.4	\$39.4	\$39.4	\$4.5	12.9%	3.1%
Total Opioid-Classified Addiction Clients Served	1,640			1,961	2,031	2,047	2,303	1,409	1,304	987	840	1,535	126	8.9%	2.2%
Total Addiction Clients Served	12,287			9,707	9,123	9,185	10,522	5,273	4,272	3,555	2,803	3,232	(2,041)	-38.7%	-11.5%
% of Opioid-Classified Addiction Clients Served	13.3%			20.2%	22.3%	22.3%	21.9%	26.7%	30.5%	27.8%	30.0%	47.5%	20.8%		

Note 1: In 2009, the former Alcohol and Drug Addiction Services Board of Cuyahoga County and the Cuyahoga County Community Mental Health Board (or CCMH) consolidated to form ADAMHS. Therefore, ADAMHS annual reports are not available prior to 2009. Additionally, there are no annual reports available for the Alcohol and Drug Addiction Services Board from 2006-2008.

Note 2: Expenditure and client data for 2009-2011 represents the fiscal period June 30 of the preceding year through July 1. Expenditure and client data for 2012 represents the fiscal period July 1, 2011 through

⁶⁶ See Appendix 4 – Cuyahoga County Direct Costs.

HIGHLY CONFIDENTIAL

December 31, 2012 (i.e., 18-months). Expenditure and client data for 2013-2017 represents the fiscal period January 1 through December 31.

Note 3: Expenditure and client data for 2009-2012 includes services paid for by Medicaid funds. Expenditure and client data for 2013-2017 excludes services paid for by Medicaid funds.

Note 4: Expenditure data for Addiction Services and Mental Health Services represents the sum of the “Service Category” expenditures as presented in the ADAMHS Annual Reports. Total Costs represents the total ADAMHS expenditures as presented in the “Financial Summary” in the ADAMHS Annual Reports. As a result, the expenditures for Addiction and Mental Health Services do not equal Total Costs for all years (e.g., 2013).

Note 5: The Cuyahoga County Contribution is funded by the Cuyahoga HHS Levy. Prior to the consolidation of the two boards, Cuyahoga County contributed to the Alcohol and Drug Addiction Services Board and Mental Health Board separately. Combined amounts in 2006, 2007, and 2008 totaled \$37.8, \$38.9, and \$37.9, respectively.

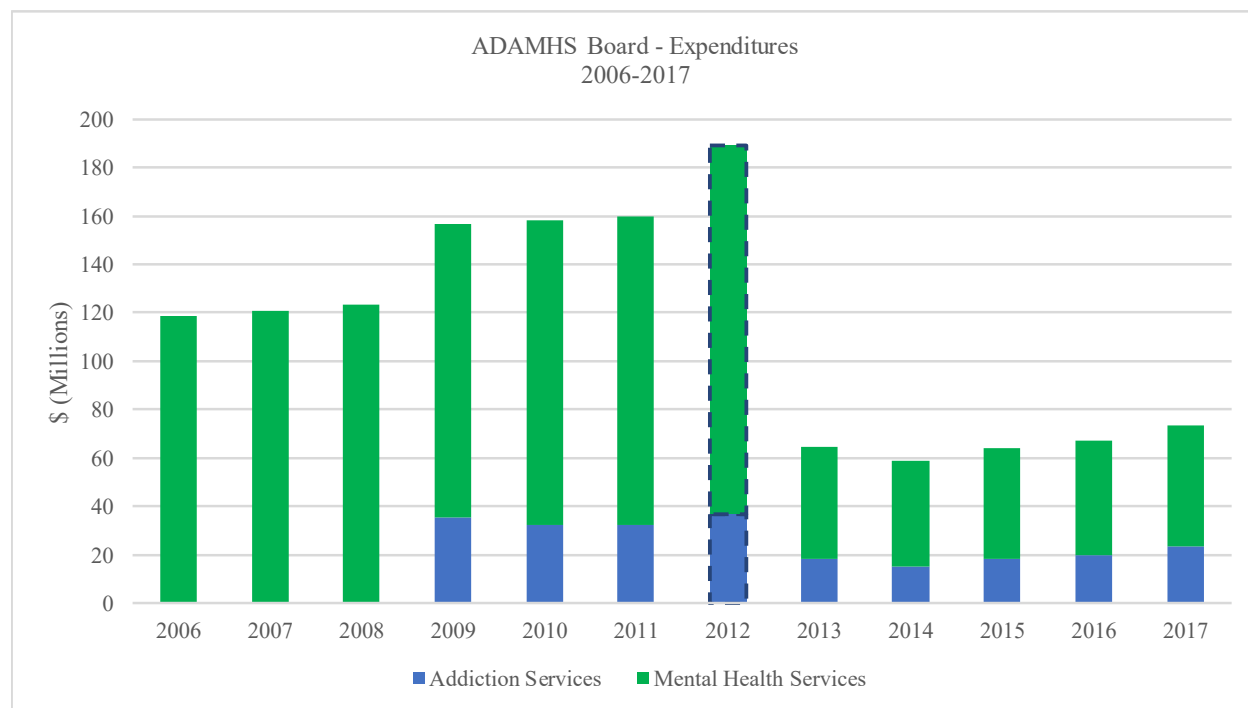
Note 6: “Total Opioid-Classified Addiction Clients Served” represent clients with a primary substance use diagnosis of “Opioid Type Dependence” or “Opioid Abuse” per the ADAMHS Annual Reports.

Note 7: ADAMHS does not report additional detail regarding its opioid clients, including those being treated for prescription opioid abuse or dependence versus illicit opioid abuse or dependence.

Source: CUYAH_014627783; ADAMHS 2006-2017 Annual Reports; CUYAH_016433196; CCMH 2006-2008 Annual Reports.

These expenditures and key metrics are further exhibited in the graphs below:

Graph V.C.1-1: Summary of Expenditures



Note 1: Breakout of Addiction Services is not available for 2006-2008.

Note 2: Expenditures for 2012 represent an 18-month period.

HIGHLY CONFIDENTIAL

In my review of the expenditures and key metrics of the ADAMHS Board, I noted the following:

- Addiction Services expenditures were relatively flat between 2009 and 2011, decreased in 2013 (noting 2012 was an 18-month period), fluctuated between 2013 and 2015, and then increased by \$4.8 million (or 25.8%) from 2015 to 2017.
- Total expenditures decreased by \$122.3 million from 2012 to 2013. This decrease is attributable in significant part to the shift in how Medicaid funds are paid by the State. Starting in 2013, the ADAMHS annual reports began reporting only the portion not paid by Medicaid funds. Additionally, total expenditures in 2012 reflect an 18-month period (see note 2 of Table V.C.1-1).
- County levy contributions have increased by \$1.6 million (or 4.2%) from 2006 to 2017.
- Opioid-classified addiction clients remained relatively flat between 2009 and 2012 (noting 2012 was an 18-month period), decreased between 2013 and 2016, and then increased in 2017 by 695 clients.⁶⁷
- Opioid-classified addiction clients as a percentage of total addiction clients was relatively flat between 2009 and 2012, increased by 4.8% in 2013, remained relatively flat between 2013 and 2016, and then increased by 17.5% in 2017.

Expenditures for ADAMHS are comprised of two main categories: (1) board administration and (2) contract services. ADAMHS has relatively few employees that handle administrative functions, which keeps personnel cost low. Instead, the vast majority of expenditures fall under contract services, where third party agencies are paid for providing addiction and mental health services to clients served under ADAMHS.

Overall, expenditures were relatively flat between 2009 and 2012 (noting 2012 was an 18-month period), decreased in 2013, were relatively flat between 2013 and 2015, and then increased by \$4.8 million (or 25.8%) from 2015 to 2017. I understand that this increase in expenditures in 2016 and 2017 was substantially after prescription opioid prescriptions and

⁶⁷ The increase from 2016 to 2017 was likely impacted by the 940 clients that were categorized as “Missing Diagnosis” in 2016 per the ADAMHS Annual report.

HIGHLY CONFIDENTIAL

shipments began to decrease in or around 2010,⁶⁸ and therefore the increase in expenditures could be related to heroin and fentanyl and not to prescription opioids, but I do not address causation or fault issues in this report, and present here simply incremental costs that could be related, at least in part, to opioids generally.

Beginning in 2013, ADAMHS stopped reporting expenditures and data for Medicaid clients as Medicaid claims were no longer processed by ADAMHS and instead claims were directly paid by the state.⁶⁹ Because of this shift in reporting, the ADMAHS data before and after 2012 is not comparable. Also, effective in 2014, Ohio adopted the Affordable Care Act which expanded Medicaid coverage to a larger percentage of the population, therefore lowering the number of clients served by ADAMHS.⁷⁰

Both before and after 2013, the county obviously did not incur any costs for services covered by Medicaid. Therefore, for this reason, and due to the changes in Medicaid claim processing and related ADAMHS reporting, I analyzed the ADAMHS non-Medicaid expenditures.⁷¹ These expenditures would include treatment for opioid abuse and dependency funded by ADAMHS (including both levy and state/federal funds). Graph V.C.1-2 depicts the ADAMHS non-Medicaid Addiction and Mental Health Services expenditures for 2009 to 2017.

⁶⁸ See Cutler Report, p. 29.

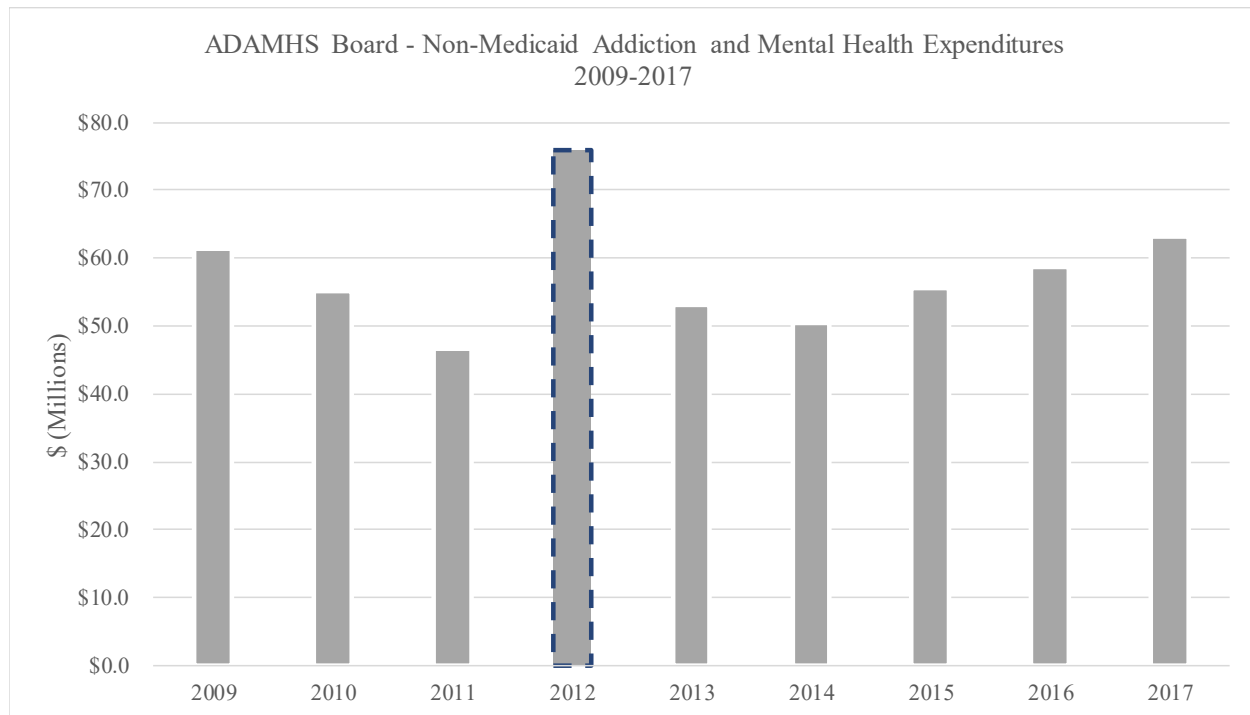
⁶⁹ See ADAMHS 2013 Annual Report, p. 2.

⁷⁰ See ADAMHS 2014 Annual Report, p. 4.

⁷¹ AoD non-Medicaid expenditures were not separately reported in the ADAMHS annual reports except in 2009.

HIGHLY CONFIDENTIAL

**Graph V.C.1-2: ADAMHS Non-Medicaid
Addiction and Mental Health Services Expenditures**



Note 1: Non-Medicaid Addiction and Mental Health Service expenditures includes Non-Medicaid Fee for Service and Board Grant expenditures.

Note 2: Expenditure data for 2009-2011 represent the fiscal period June 30 of the preceding year through July 1. Expenditure data for 2012 represent the fiscal period July 1, 2011 through December 31, 2012 (i.e., 18-months). Expenditure data for 2013-2017 represent the fiscal period January 1 through December 31.

Source: ADAMHS 2009-2017 Annual Reports.

As depicted in the graph above, non-Medicaid Addiction and Mental Health Services expenditures remained stable between 2010 and 2015 (noting 2012 was an 18-month period). ADAMHS continued to provide the ordinary provision of services for mental health and addiction services at consistent levels and did not incur costs in excess of the norm until 2016 when there is an increase in both number and percentage of opioid-classified addiction clients, increasing from 27.8% in 2015 to 47.5% in 2017.⁷² Although the number of opioid-classified addiction clients served decreased from 987 in 2015 to 840 in 2016 and the percentage of opioid-classified addiction clients does not increase significantly (increasing from 27.8% in 2015 to

⁷² See ADAMHS 2017 Annual Report, p.11.

HIGHLY CONFIDENTIAL

30% in 2016), there are 940 clients listed as “missing diagnosis.”⁷³ Additionally, ADAMHS does not report further detail regarding its opioid clients, including those being treated for prescription opioid abuse or dependence versus illicit opioid abuse or dependence.

Based on my review of the available information, I can reasonably determine that the incremental increases in Addiction Services expenditures in 2016 and 2017 could be related to opioids.⁷⁴ However, it should be noted that the incremental increases in 2016 to 2017 may be largely due to the rise in heroin and synthetic opioid abuse including fentanyl.⁷⁵

Table V.C.1-2 is my calculation of incremental Addiction Services costs for the ADAMHS Board.

Table V.C.1-2: Incremental Addiction Services Costs

ADAMHS Board	Average \$ (2013 - 2015)	2016	2017	Total (2016-2017)
Addiction Services Expenditures	\$16,962,772	\$19,800,000	\$23,279,000	\$43,079,000
Incremental Costs		2,837,228	6,316,228	9,153,455
Less Direct Costs Identified		(322,161)	(6,259,937)	(6,582,098)
Remaining Incremental Costs		2,515,067	56,291	
% County Funded		42.0%	44.0%	
County-Funded Incremental Cost		\$1,055,440	\$24,792	\$1,080,231

Note 1: The 2013-2015 average Addiction Services Expenditures is calculated net of my direct costs for this period for the ADAMHS Board.

Note 2: County-funded percentage was determined utilizing data reported to Ohio MHAS by calculating the percentage of addiction services funded by the County Contribution/Levy.

Sources: ADAMHS 2013-2017 Annual Reports, OhioMHAS_2804-00000003, OhioMHAS_2804-00000004, ADAMHS Board Minutes, General Meeting, January 25, 2017 and January 31, 2018 (http://adamhscc.org/pdf_adamhscc/en-US/Agenda/General%20Mtg%20packet%2001-25-17.pdf and http://adamhscc.org/pdf_adamhscc/en-US/General%20Mtg%20packet,%2001-31-18.pdf).

My calculation of incremental costs is based on a baseline period of 2013-2015. I utilized 2013-2015 as a baseline period, because (1) Addiction Services expenditures declined

⁷³ See ADAMHS 2016 Annual Report, p.11.

⁷⁴ For purposes of my analysis, I assumed the clients listed as “missing diagnosis” in 2016 were, at least in part, receiving services related to opioid dependence.

⁷⁵ See “The Fentanyl Failure.” Washington Post, March 13, 2019.

HIGHLY CONFIDENTIAL

from 2013 to 2014 by \$3.2 million⁷⁶ and then increased by \$3.4 million from 2014 to 2015 – net 2013 to 2015 was flat, only up by \$0.2 million, (2) Opioid classified clients served decreased from 1,409 in 2013 to 1,304 in 2014 to 987 in 2015, and (3) Addiction Services expenditures in 2016 and 2017 are not comparable to years prior to 2013 because of the reporting and policy changes previously mentioned. For each year after 2015, I compared the total amount expended for Addiction Services to the average total Addiction Services expenditures between 2013 and 2015. Each yearly incremental increase, less any identified direct costs, was then multiplied by a factor representing the percentage of Addiction Services expenditures funded by the county using data reported to Ohio MHAS.^{77,78}

In total, I calculated \$1,080,231 in incremental Addiction Services costs for ADAMHS. My calculation is conservative as it assumes all incremental Addiction Services are related to opioid abuse or dependence, which is likely not the case. Additionally, as previously noted, this increase may also be more closely related to the rise in heroin and synthetic opioid abuse including fentanyl.

2. Children and Family Services

Per the Court's recent Orders,⁷⁹ my analysis of Cuyahoga County Children and Family Services is omitted, pending receipt of Children and Family Services case files from Plaintiffs. Upon receipt, I will provide my opinions on Cuyahoga County Children and Family Services in a separate supplemental report. I may also update certain summed cost tabulations presented in this report to be inclusive of my supplemental analysis.

⁷⁶ The decline in AoD expenditures in 2014 is believed to be related to Medicaid expansion and the corresponding reduction in non-Medicaid AoD clients served. However, I included this year in my baseline period to the benefit of the Plaintiffs.

⁷⁷ See OhioMHAS_2804-00000003 and OhioMHAS_2804-00000004. Data submitted to Ohio's Mental Health and Addiction Services Department to show sources and uses of funding sources received by ADAMHS.

⁷⁸ Data submitted to Ohio MHAS breakouts out ADAMHS expenditures (Addiction and Mental Health Services) by funding source (Federal, State, County, Other).

⁷⁹ See Order re Objections to Discovery Ruling No. 17 from J. Polster dated April 10, 2019 (Dkt. No. 1535) and Order Granting an Extension to File a Single, Supplemental Report on Children's Services' Damages from SM Cohen dated May 7, 2019.

HIGHLY CONFIDENTIAL

3. Office of the Prosecutor

The Cuyahoga County Office of the Prosecutor is responsible for the prosecution of criminal and civil cases and to protect the public's right to safety.⁸⁰ This division is also tasked with prosecuting complex cases of financial crimes and government corruption as well as developing prosecution strategies that address crime issues impacting the community.⁸¹

The Office of the Prosecutor is divided into six subdivisions: (1) Administration, (2) Criminal, (3) Civil, (4) Family Law, (5) Juvenile, and (6) Special Investigations.⁸² Across these six subdivisions there are 24 units including, for example, Finance and Operations, General Civil Unit, Appeals Unit, General Felony Unit, Major Drug Offender Unit, Child Support Unit, Juvenile Justice Unit, Internet Crimes Against Children Unit, and the Sexual Assault Kit Task Force.

The information I considered in my analysis of the Office of the Prosecutor included, but was not limited to, the following:

- County budgets and CAFRs
- Expenditure data
- Headcount data
- Criminal charge data
- Relevant depositions and exhibits
- Publicly available information

a) Identification of Direct Costs

Based on my review of the available information, I identified no direct costs related to prescription opioids for Office of the Prosecutor. As stated above, although this case involves claims related to harm caused by prescription opioids, I have also analyzed costs associated with

⁸⁰ See <http://prosecutor.cuyahogacounty.us/en-US/about-the-office.aspx> and Cuyahoga 2018/2019 Recommended Budget, p. 116.

⁸¹ See <http://prosecutor.cuyahogacounty.us/en-US/Crime-Strategies.aspx> and <http://prosecutor.cuyahogacounty.us/en-US/Economic-Crime-Unit.aspx>.

⁸² See <http://prosecutor.cuyahogacounty.us/en-US/units-divisions.aspx>.

HIGHLY CONFIDENTIAL

opioid abuse generally in the event that the Court finds damages warranted beyond the harms caused solely by prescription opioid abuse. Thus, regarding opioids generally, I identified direct costs of \$100,000 for the Office of the Prosecutor.⁸³ These direct costs related to the launch of the Prosecutor's "Let's Face Heroin Campaign" in 2015 and were paid for by the County's forfeiture funds. This campaign is not specific to prescription opioids.

b) Identification and Analysis of Incremental Costs

Based on my review of the available information, I did not identify any incremental costs for the Office of the Prosecutor between 2006 and 2017, whether related either to prescription opioids or opioids generally. My analysis of incremental costs is presented below.

Table V.C.3-1 is a summary of expenditures and key metrics of the Office of the Prosecutor for the period 2006 through 2017.

Table V.C.3-1: Summary of Expenditures and Key Metrics

Office of the Prosecutor (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Δ (06-17)	% Δ (06-17)	CAGR (06-17)
Salaries	\$14.7	\$16.4	\$16.8	\$17.1	\$17.1	\$16.7	\$17.6	\$17.8	\$18.9	\$21.0	\$21.2	\$21.3	\$6.6	44.7%	3.4%
Benefits	\$5.4	\$5.5	\$5.7	\$5.3	\$5.6	\$5.7	\$6.3	\$6.1	\$6.6	\$7.3	\$7.9	\$8.2	\$2.8	51.0%	3.8%
Prof & Tech Services--Non-Contract	\$1.1	\$0.8	\$1.0	\$1.5	\$1.4	\$1.4	\$1.0	\$1.7	\$1.1	\$1.6	\$1.5	\$2.3	\$1.1	102.8%	6.6%
Space Maintenance	\$0.8	\$0.7	\$0.8	\$0.7	\$0.7	\$0.6	\$1.0	\$0.9	\$0.9	\$1.4	\$1.1	\$1.4	\$0.6	75.8%	5.3%
Computerized Software	\$0.4	\$0.7	\$1.4	\$1.5	\$0.8	\$0.6	\$0.8	\$0.6	\$0.7	\$0.8	\$0.6	\$0.9	\$0.5	139.7%	8.3%
Other Non-Compensation Costs	\$2.1	\$2.2	\$3.2	\$2.5	\$2.1	\$2.1	\$7.4	\$1.3	\$1.9	\$3.5	\$2.6	\$2.3	\$0.3	14.0%	1.2%
Total Costs	\$24.5	\$26.3	\$29.0	\$28.5	\$27.9	\$27.1	\$34.1	\$28.4	\$30.1	\$35.6	\$34.8	\$36.4	\$11.9	48.6%	3.7%
Compensation Costs (Salaries + Benefits)	\$20.2	\$21.9	\$22.6	\$22.4	\$22.8	\$22.3	\$23.9	\$23.9	\$25.5	\$28.3	\$29.0	\$29.5	\$9.4	46.4%	3.5%
Compensation Costs as % of Total Costs	82.4%	83.3%	77.6%	78.5%	81.6%	82.5%	70.0%	84.2%	84.6%	79.6%	83.5%	81.2%	-1.2%		
FTEs	322	340	337	329	333	328	339	319	347	361	365	357	35	10.9%	0.9%
(\$ Actual)															
Average Salaries per FTE	\$45,779	\$48,332	\$49,980	\$52,047	\$51,456	\$50,814	\$51,945	\$55,694	\$54,480	\$58,174	\$58,028	\$59,749	\$13,970	30.5%	2.5%
Average Benefits per FTE	\$16,881	\$16,188	\$16,950	\$15,971	\$16,937	\$17,323	\$18,446	\$19,257	\$19,005	\$20,328	\$21,523	\$22,995	\$6,114	36.2%	2.8%
Average Compensation Costs per FTE	\$62,660	\$64,520	\$66,930	\$68,019	\$68,393	\$68,136	\$70,391	\$74,952	\$73,485	\$78,501	\$79,550	\$82,744	\$20,085	32.1%	2.6%
Total Criminal Charges					57,146	54,348	51,219	50,673	53,887	53,885	54,588	50,955	(6,191)	-10.8%	-1.6%
Total Criminal Charges per FTE					172	166	151	159	155	149	150	143	(29)	-16.8%	-2.6%
Total Drug Charges					13,022	12,027	11,347	10,828	9,853	7,890	8,200	10,274	(2,748)	-21.1%	-3.3%
Total Drug Trafficking Charges					5,894	5,325	4,839	4,218	3,729	2,767	2,630	3,321	(2,573)	-43.7%	-7.9%
Drug Charges as % of Total Charges					22.8%	22.1%	22.2%	21.4%	18.3%	14.6%	15.0%	20.2%	-2.6%		

Note 1: Complete criminal charge data is not available prior to 2010.

Note 2: Absolute change, percent change, and CAGR metrics for criminal charges are calculated based on the years data was available.

Note 3: Drug charges include the following charges: 0607.20, 2923.241, 2925.02, 2925.03, 2925.041, 2925.05, 2925.07, 2925.09, 2925.11, 2925.12, 2925.13, 2923.14, 2923.141, 2925.22, 2925.23, 2925.24, 2925.31, 2925.37, and 4729.51.

⁸³ See Appendix 4 – Cuyahoga County Direct Costs.

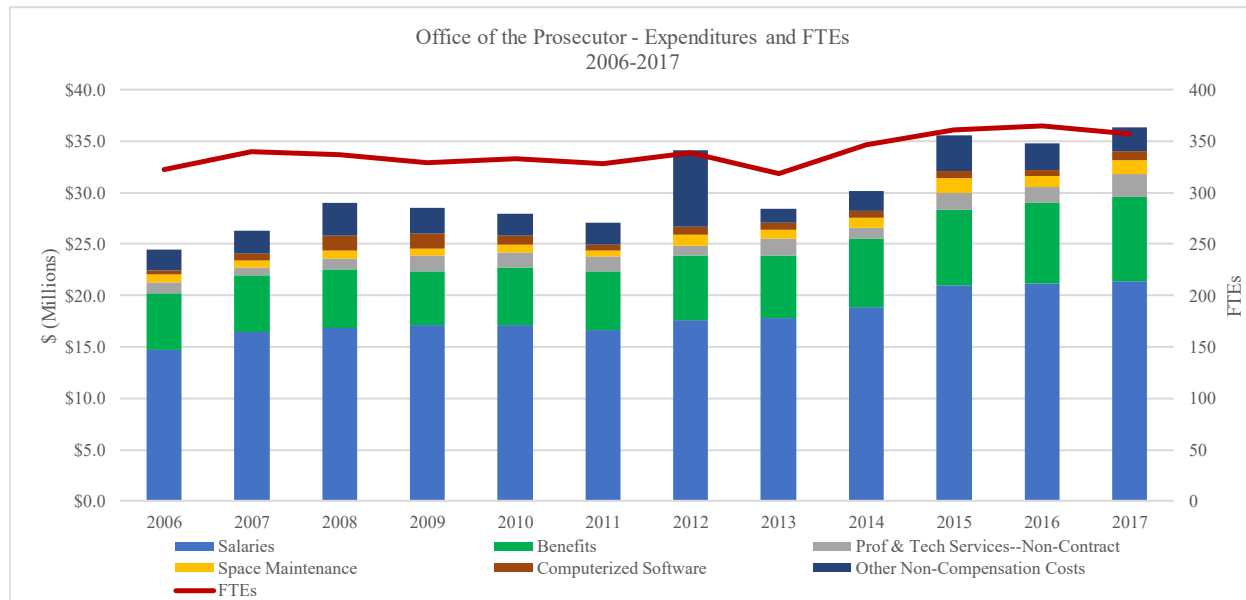
HIGHLY CONFIDENTIAL

Note 4: Drug trafficking charges were estimated based on the charge descriptions for charge codes 2925.03, 2925.05, 2925.07, and 2925.37 (omitted charges with description “Possession of Counterfeit Controlled Substances” in charge code 2925.37).

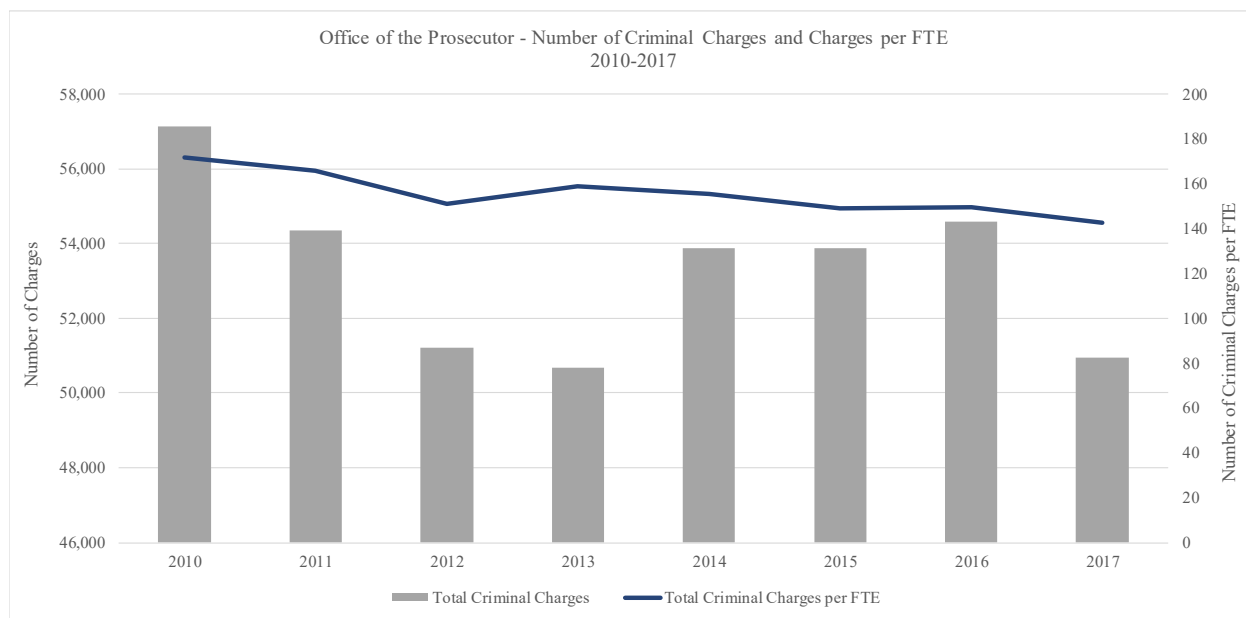
Sources: CUYAH_014627783; CUYAH_001714366; CUYAH_000097414.

These expenditures and key metrics are further exhibited in the graphs below:

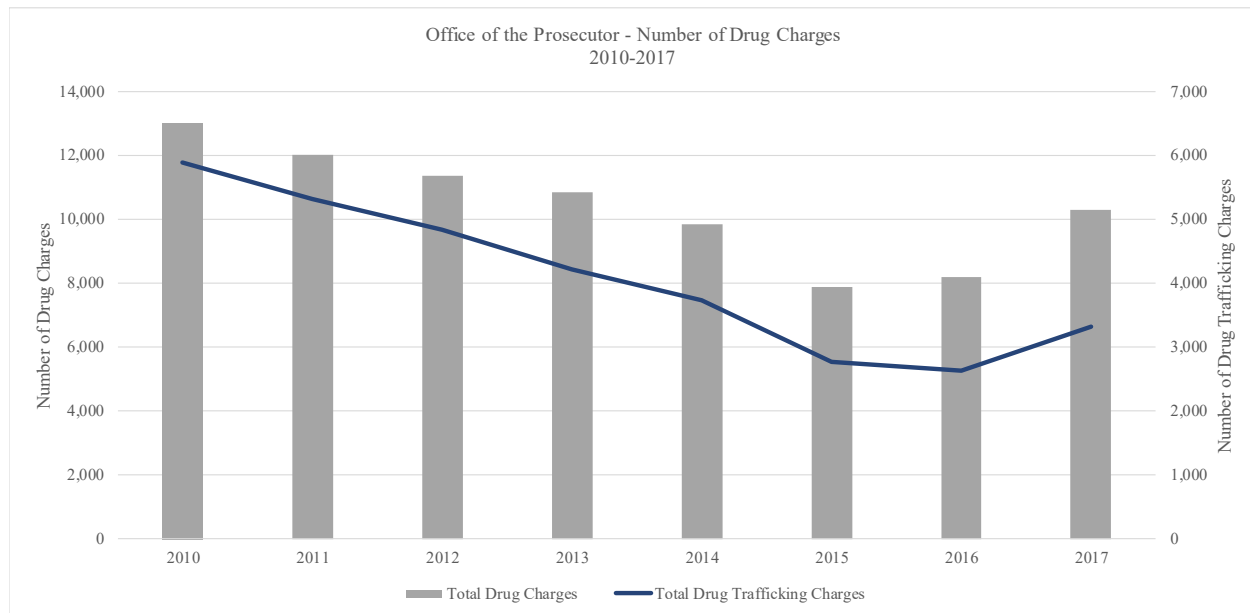
Graph V.C.3-1: Expenditures and FTEs



Graph V.C.3-2: Criminal Charges



HIGHLY CONFIDENTIAL

Graph V.C.3-3: Drug Charges

In my review of the expenditures and key metrics of the Office of the Prosecutor, I noted the following:

- Total compensation costs (salaries and benefits) fluctuated between 2006 and 2017, but increased overall by \$9.4 million (or 46.4%).
- The CAGR of average compensation per FTE was 2.6%, which is slightly above the average inflation rate of state and local government employees' compensation of 2.4%.⁸⁴
- Other non-compensation costs includes a \$5.0 million "Transfer Out" in 2012. I was unable to identify the purpose of the transfer in the available information.
- There was a net increase of 35 FTEs between 2006 and 2017, including a net decrease of 3 FTEs between 2006 and 2013 and a net increase of 38 FTEs between 2013 and 2017.
- Criminal charges per FTE declined from 172 to 143 between 2010 and 2017.

⁸⁴ See U.S. Bureau of Labor Statistics, Employment Cost Index (NAICS basis), 2007-2017 – Series I.D. CIU3010000000000Q (Not Seasonally Adjusted).

HIGHLY CONFIDENTIAL

Compensation Costs

Total compensation costs (salaries and benefits) increased by \$9.4 million (or 46.4%) from 2006 to 2017 and represent 80.6% of total expenditures during the period.⁸⁵ There was a net increase of 35 FTEs between 2006 and 2017. Based on my review of the headcount data,⁸⁶ 15 of the 35 net FTE additions occurred in the Delinquent Tax and Assessment Collection section of the Office of the Prosecutor. The remaining 20 net FTEs pertained to a net increase of 36 FTEs in the General Office and a net decrease of 16 FTEs in the Child Support and Children and Family Services sections.

Based on my review of the criminal charge data of the Office of the Prosecutor,⁸⁷ I noted total drug charges declined by 2,748 between 2010 and 2017. This decline was primarily the result of the decline in drug trafficking charges which declined by 2,573 between 2010 and 2017. However, despite this decline in total drug charges, the Office of the Prosecutor added FTEs during the period. Therefore, the increase in FTEs appears to be due to charge types unrelated to drugs or the Office of the Prosecutor was not operating at capacity in 2017.

In addition to the FTE and criminal charge data, I also reviewed the Office of the Prosecutor's Report to the Public for the years 2015 and 2016, the deposition of James Gutierrez, Esq. (Assistant County Prosecutor), and other relevant available information.⁸⁸ Based on my review of this information, I did not identify any reference which attributed the increase in FTEs or average compensation to the opioid crisis. I did, however, note the following:

- The 2014/2015 Budget Plan noted three attorneys were added to the division to work on sex crimes and crimes against children.⁸⁹

⁸⁵ See CUYAH_014627783.

⁸⁶ See CUYAH_001714366.

⁸⁷ See CUYAH_000097414.

⁸⁸ The Plaintiff (Cuyahoga County) did not produce and I was not able to otherwise locate the Office of the Prosecutor's Report to the Public for the years 2006 through 2014 and 2017.

⁸⁹ See Cuyahoga 2014/2015 Budget Plan (CUYAH_000008003), p. II-12.

HIGHLY CONFIDENTIAL

- The 2016/2017 Budget Plan noted the anticipated staffing increase in the division was largely attributed to sexual assault investigations and prosecutions related to the backlog of rape kits.⁹⁰
- Mr. Gutierrez testified he had no knowledge as to whether the division had taken actions around the year 2015 to hire employees to work on opioid-related matters.⁹¹
- Mr. Gutierrez testified he had no knowledge as to whether the division incurred any additional expenses due to the opioid crisis.⁹²

Based on the above and my review of the available information, I determined there were no incremental increases in compensation costs related to prescription opioids or opioids generally.

Non-Compensation Costs

Non-compensation costs increased by \$2.5 million between 2006 and 2017. The increase in non-compensation costs was mostly attributable to increases in “Prof & Tech Services – Non-Contract,” “Space Maintenance,” and “Computerized Software.” Based on the account descriptions and my review of the available information, it does not appear these accounts contain costs related to opioids not otherwise identified in my calculation of direct costs. Additionally, I note that the McGuire Report does not identify these accounts as “affected costs.”⁹³

4. Office of the Public Defender

The Cuyahoga County Office of the Public Defender was created in 1977 to provide legal services to indigent adults and juveniles charged with violations of the criminal code.⁹⁴ The Office of the Public Defender is organized into four subdivisions: (1) Felony, (2) Appellate, (3) Juvenile, (4) and Municipal.⁹⁵ The Felony attorneys represent indigent individuals in the county

⁹⁰ See Cuyahoga 2016/2017 Budget Plan (CUYAH_005987279), p. 18.

⁹¹ See deposition of James Gutierrez, Esq. dated January 31, 2019, p. 254:10-14.

⁹² See deposition of James Gutierrez, Esq. dated January 31, 2019, pp. 254:25-255:6.

⁹³ See McGuire Report, Appendix IV.C-3.2.

⁹⁴ See <http://publicdefender.cuyahogacounty.us/>.

⁹⁵ See <http://publicdefender.cuyahogacounty.us/en-US/Divisions.aspx>.

HIGHLY CONFIDENTIAL

who are charged with felony offenses. The Appellate attorneys file direct appeals to the Eighth District Court of Appeals (serving Cuyahoga County), the Ohio Supreme Court, and the United States Supreme Court. The Juvenile attorneys represent indigent minors in delinquency and unruliness matters, including cases in which the State desires to prosecute the child in adult court. The Municipal attorneys provide representation to all clients “determined to be indigent and facing misdemeanor charges under state statute and the municipal ordinances of the City of Cleveland for which incarceration is a possible consequence.”⁹⁶ The City of Cleveland reimburses the county for legal counsel to indigent clients in the Cleveland Municipal Court.⁹⁷

The information I considered in my analysis of the Office of the Public Defender included, but was not limited to, the following:

- County budgets and CAFRs
- Expenditure data
- Headcount data
- Criminal charge data
- Relevant depositions and exhibits
- Publicly available information

a) Identification of Direct Costs

Based on my review of the available information, I did not identify any direct costs for the Office of the Public Defender between 2006 and 2017, whether related either to prescription opioids or opioids generally.

b) Identification and Analysis of Incremental Costs

Based on my review of the available information, I did not identify any incremental costs for the Office of the Public Defender between 2006 and 2017, whether related either to prescription opioids or opioids generally. My analysis of incremental costs is presented below.

⁹⁶ See <http://publicdefender.cuyahogacounty.us/en-US/Divisions.aspx>.

⁹⁷ See Cuyahoga 2018/2019 Budget Plan, “Office of the Public Defender” section.

HIGHLY CONFIDENTIAL

Table V.C.4-1 is a summary of expenditures and key metrics of the Office of the Public Defender for the period 2006 through 2017.

Table V.C.4-1: Summary of Expenditures and Key Metrics

Office of the Public Defender (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Δ (06-17)	% Δ (06-17)	CAGR (06-17)
Salaries	\$4.4	\$4.7	\$5.9	\$6.1	\$4.9	\$4.6	\$4.7	\$4.9	\$5.3	\$6.0	\$6.1	\$6.7	\$2.2	50.2%	3.8%
Benefits	\$1.5	\$1.6	\$1.8	\$1.7	\$1.9	\$1.8	\$1.8	\$1.6	\$1.7	\$1.9	\$2.2	\$2.5	\$1.0	69.5%	4.9%
Space Maintenance	\$0.2	\$0.1	\$0.2	\$0.1	\$0.3	\$0.6	\$0.9	\$0.1	\$0.7	\$0.5	\$0.7	\$0.5	\$0.3	126.7%	7.7%
Indirect Costs	\$0.4	\$0.2	\$0.3	\$0.2	\$0.3	\$0.2	\$0.3	\$0.3	\$0.6	\$0.3	\$0.2	\$0.3	(\$0.1)	-20.7%	-2.1%
Data Processing	\$0.2	\$0.2	\$0.3	\$0.3	\$0.2	\$0.2	\$0.2	\$0.0	\$0.1	\$0.1	\$0.1	\$0.1	(\$0.1)	-68.3%	-9.9%
Other Non-Compensation Costs	\$0.8	\$0.8	\$0.7	\$0.7	\$0.6	\$0.7	\$0.4	\$0.5	\$0.5	\$0.4	\$0.6	\$0.6	(\$0.2)	-27.6%	-2.9%
Total Costs	\$7.5	\$7.6	\$9.2	\$9.2	\$8.2	\$8.1	\$8.2	\$7.5	\$8.8	\$9.1	\$9.9	\$10.6	\$3.1	40.9%	3.2%
Compensation Costs (Salaries + Benefits)	\$5.9	\$6.2	\$7.7	\$7.9	\$6.8	\$6.4	\$6.4	\$6.5	\$7.0	\$7.9	\$8.3	\$9.1	\$3.2	54.9%	4.1%
Compensation Costs as % of Total Costs	78.5%	82.2%	84.4%	85.0%	83.3%	79.6%	78.4%	87.8%	79.5%	86.9%	83.5%	86.3%			
FTEs	91	93	94	88	80	80	80	77	80	88	90	96	5	5.5%	0.5%
(\$ Actual)															
Average Salaries per FTE	\$48,890	\$50,451	\$62,930	\$69,743	\$61,652	\$57,767	\$58,607	\$63,952	\$65,731	\$68,304	\$67,260	\$69,587	\$20,697	42.3%	3.3%
Average Benefits per FTE	\$16,002	\$16,728	\$19,182	\$19,561	\$23,600	\$22,637	\$21,899	\$21,089	\$21,709	\$21,874	\$24,591	\$25,703	\$9,701	60.6%	4.4%
Average Compensation Costs per FTE	\$64,892	\$67,179	\$82,112	\$89,303	\$85,252	\$80,404	\$80,506	\$85,041	\$87,439	\$90,178	\$91,851	\$95,290	\$30,398	46.8%	3.6%
Total Drug Charges					13,022	12,027	11,347	10,828	9,853	7,890	8,200	10,274	(2,748)	-21.1%	-3.3%
Total Drug and Impact on Non-Drug Charges					18,748	17,608	16,681	16,210	15,403	13,537	14,116	15,266	(3,482)	-18.6%	-2.9%

Note 1: Expenditures and FTEs for the Cleveland Municipal Court were excluded because the county is reimbursed by the City of Cleveland for legal services provided by the Office of the Public Defender (*see* Cuyahoga 2018/2019 Budget Plan, “Office of the Public Defender” section).

Note 2: The FTE headcount is limited to FTEs allocated to the General Fund Operating and Public Defender HHS funds. FTEs for the Cleveland Municipal Court were excluded.

Note 3: Complete criminal charge data is not available prior to 2010.

Note 4: Absolute change, percent change, and CAGR metrics for criminal charges are calculated based on the years data was available.

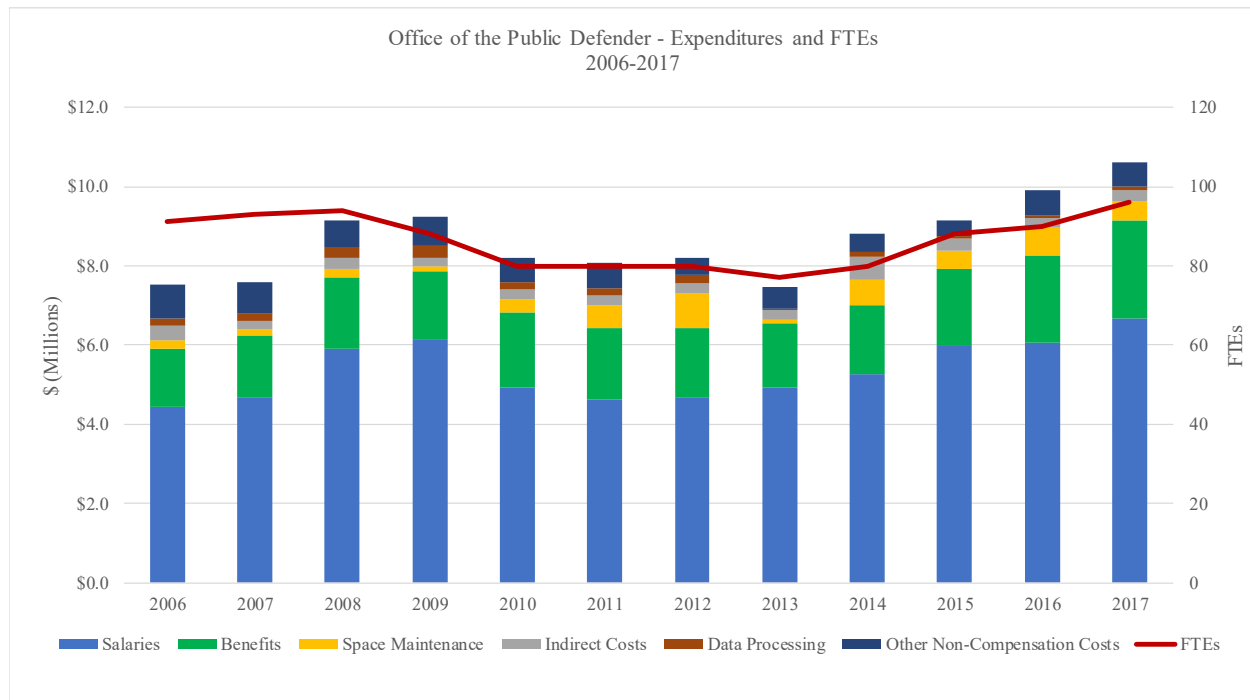
Note 5: Drug charges include the following charges: 0607.20, 2923.241, 2925.02, 2925.03, 2925.041, 2925.05, 2925.07, 2925.09, 2925.11, 2925.12, 2925.13, 2923.14, 2923.141, 2925.22, 2925.23, 2925.24, 2925.31, 2925.37, and 4729.51.

Note 6: Total impact on non-drug charges are calculated per Cutler’s methodology of applying the U.S. Department of Justice defined Drug Attribution Factor to non-drug crimes. *See* U.S. Department of Justice, National Drug Intelligence Center, “The Economic Impact of Illicit Drug Use on American Society,” 2011, Table 1.7 (<https://www.justice.gov/archive/ndic/pubs44/44731/44731p.pdf>).

Sources: CUYAH_014627783; CUYAH_001714366; Cuyahoga 2008-2016/2017 Budget Plans; Cuyahoga 2018/2019 Recommended Budget.

These expenditures and key metrics are further exhibited in the graph below:

HIGHLY CONFIDENTIAL

Graph V.C.4-1: Expenditures and FTEs

In my review of the expenditures and key metrics of the Office of the Public Defender, I noted the following:

- Total compensation costs (salaries and benefits) fluctuated between 2006 and 2017, but increased overall by \$3.2 million (or 54.9%) from 2006 to 2017.
- Average compensation cost per FTE increased from \$64,892 in 2006 to \$95,290 in 2017.
- There was a net increase of 5 FTEs between 2006 and 2017 including a net decrease of 14 FTEs between 2006 and 2013 and a net increase of 19 FTEs between 2013 and 2017.
- Total drug charges and total drug and impact of non-drug charges declined by 21.1% and 18.6% from 2010 to 2017, respectively.

HIGHLY CONFIDENTIAL

Compensation Costs

Total compensation costs (salaries and benefits) increased by \$3.2 million (or 54.9%) from 2006 to 2017 and represent 83.1% of total expenditures during the period.⁹⁸ The CAGR of average compensation per FTE was 3.6%. There was a net increase of 5 FTEs between 2006 and 2017 including a net decrease of 14 FTEs between 2006 and 2013 and a net increase of 19 FTEs later in the period between 2013 and 2017.

Although there was a net increase in FTEs, the total drug charges and total drug and impact of non-drug charges declined by 21.1% and 18.6% from 2010 to 2017, respectively.⁹⁹ Therefore, the increase in FTEs does not appear to be related to drug or opioid abuse. Additionally I did not identify any information to explain the reason for the increase in average compensation cost per FTE; however, I did note that the Office of the Public Defender is reimbursed for approximately 48% of its defense expenses.^{100,101}

Based on the above and my review of the available information, I determined there were no incremental increases in compensation costs related to prescription opioids or opioids generally.

Non-Compensation Costs

Non-compensation costs include “Space Maintenance,” “Indirect Costs,” “Data Processing” and other non-compensation related accounts. Non-compensation costs remained relatively flat between 2006 and 2017 except for a large decrease in 2013. This decrease was mostly attributable to a decrease in “Space Maintenance” and “Data Processing” costs. Based on the account descriptions and my review of the available information, it does not appear these accounts contain costs related to opioids. Additionally, I note that the McGuire Report does not identify any non-compensation expenditure accounts as “affected costs.”¹⁰²

⁹⁸ See CUYAH_014627783.

⁹⁹ The complete dataset for criminal charges was not produced for the years 2006 through 2009.

¹⁰⁰ See Cuyahoga 2018/2019 Budget Plan, “Revenue Analysis” section.

¹⁰¹ McGuire fails to include the reimbursement of defense expenses as an offset in his calculation of past damages for Office of the Prosecutor. See Section VI.B.b (“Offset to Affected Costs”) of my report for further detail.

¹⁰² See McGuire Report, Appendix IV.C-4.2.

HIGHLY CONFIDENTIAL

5. Court of Common Pleas

The Cuyahoga County Court of Common Pleas (General Division) is responsible for the adjudication of both criminal and civil cases involving more than \$15,000.¹⁰³ The remaining divisions within the Court of Common Pleas are reported separately (Domestic Relations, Juvenile, and Probate).¹⁰⁴

The court's mission is "to provide a forum for the fair, impartial and timely resolution of civil and criminal cases."¹⁰⁵ The Court of Common Pleas also has several specialty dockets that focus on specific needs, such as mental illness, substance abuse, post-traumatic stress disorder, and post-release needs including the Re-Entry Court, Drug Court, Veterans Treatment Court, Recovery Court, Mental Health and Developmental Disabilities Court, and Commercial Docket.¹⁰⁶

The Drug Court was created in May 2009.¹⁰⁷ The mission of the County Drug Court is "to reduce recidivism among drug-dependent offenders by enhanced treatment services."¹⁰⁸ In order to be eligible for Drug Court, the defendant must have:

- A current charge of a felony drug (non-trafficking) offense of the third, fourth, or fifth degree and be eligible for probation/ community control.
- No criminal history of sexually oriented or violent behavior, three or fewer prior non-violent felony convictions, and no prior drug trafficking convictions.
- A diagnosis of substance abuse or dependency (probation violation referrals must have diagnosis of dependence) with medium to medium-high risk scores.

¹⁰³ See <http://domestic.cuyahogacounty.us/en-US/Ohio-Court-System.aspx>.

¹⁰⁴ See Cuyahoga 2018/2019 Budget Plan, "Court of Common Pleas" section.

¹⁰⁵ See <https://cp.cuyahogacounty.us/>.

¹⁰⁶ See <https://cp.cuyahogacounty.us/court-resources/specialty-courts/>.

¹⁰⁷ See Court of Common Pleas 2017 Annual Report, "Drug Court/Recovery Court" section.

¹⁰⁸ See Court of Common Pleas 2017 Annual Report, "Drug Court/Recovery Court" section.

HIGHLY CONFIDENTIAL

The Drug Court has received multiple federal grants since its inception in 2009, including many related to substance abuse treatment and drug court expansion projects.¹⁰⁹

The Recovery Court was formed in 2015 with the assistance of a federal grant.¹¹⁰ This court focuses on alcohol, drug addiction, as well as, trauma related to mental health issues, and additionally serves the special needs of women.

The information I considered in my analysis of the Court of Common Pleas included, but was not limited to, the following:

- County budgets and CAFRs
- Court of Common Pleas annual reports
- Headcount data
- Depositions and exhibits of relevant personnel
- Publicly available information

a) Identification of Direct Costs

Based on my review of the available information, I identified no direct costs related to prescription opioids for Court of Common Pleas. As stated above, although this case involves claims related to harm caused by prescription opioids, I have also analyzed costs associated with opioid abuse generally in the event that the Court finds damages warranted beyond the harms caused solely by prescription opioid abuse. Thus, regarding opioids generally, I identified total direct costs of \$3,027,542 for the Court of Common Pleas.¹¹¹ These direct costs included the following:

- \$246,570 for “Adult Drug Court Opiate” and “Drug Court Opiate” expenditures in 2012.
- \$155,429 for “Adult Drug Court Opiate” and “Drug Court Opiate” expenditures in 2013.

¹⁰⁹ See Cuyahoga 2009-2017 Single Audits, Court of Common Pleas 2017 Annual Report (“Significant Events in 2017” and “Specialized Dockets/Programs” sections), and CUYAH_000018175.

¹¹⁰ See Court of Common Pleas 2016 Annual Report, “Specialized Dockets/Programs” section, p. 9.

¹¹¹ See Appendix 4 – Cuyahoga County Direct Costs.

HIGHLY CONFIDENTIAL

- \$68,475 for “Adult Drug Court Opiate” and “Drug Court Opiate” expenditures in 2014.
- \$100,000 contribution to Salvation Army for a pilot program to support access to Vivitrol in 2016.
- \$316,673 for TASC Adult Drug Court expenditures in 2017.
- \$2,140,395 for the Adult Probation Substance Abuse Residential Treatment Program in 2015 through 2017.

I found no evidence which indicates these direct costs were specific to prescription opioids.

Additionally, I identified \$3,538,313 of general opioid costs for the Court of Common Pleas not paid for by the county.¹¹² These general opioid costs were paid for by Substance Abuse and Mental Health Services Administration (“SAMHSA”), the Bureau of Justice Assistance, the Supreme Court, and Community Corrections Act grants. Since these general opioid costs were not the burden of the county, they are excluded from my total direct costs.

b) Identification and Analysis of Incremental Costs

Based on my review of the available information, I did not identify any incremental costs for the Court of Common Pleas between 2006 and 2017, whether related either to prescription opioids or opioids generally. My analysis of incremental costs is presented below.

Table V.C.5-1 is a summary of expenditures and key metrics of the Court of Common Pleas for the period 2006 through 2017.

¹¹² See Appendix 4 – Cuyahoga County Direct Costs.

HIGHLY CONFIDENTIAL

Table V.C.5-1: Summary of Expenditures and Key Metrics

Court of Common Pleas (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Δ (06-17)	% Δ (06-17)	CAGR (06-17)
Salaries	\$18.3	\$19.1	\$19.1	\$18.9	\$18.4	\$18.2	\$18.4	\$19.8	\$20.7	\$21.1	\$21.4	\$21.2	\$2.9	15.9%	1.4%
Benefits	\$6.0	\$6.8	\$7.2	\$6.2	\$6.3	\$6.3	\$7.1	\$7.8	\$8.1	\$8.6	\$9.8	\$10.2	\$4.2	71.1%	5.0%
Assigned Counsel	\$5.5	\$5.6	\$5.9	\$6.6	\$7.4	\$6.7	\$5.7	\$5.2	\$5.5	\$6.4	\$6.4	\$6.9	\$1.4	24.5%	2.0%
Space Maintenance	\$6.8	\$5.8	\$6.8	\$6.4	\$6.7	\$5.8	\$5.4	\$4.9	\$5.1	\$5.7	\$4.4	\$5.5	(\$1.3)	-18.6%	-1.9%
Contractual Services	\$2.0	\$2.7	\$2.7	\$1.2	\$1.1	\$1.2	\$1.0	\$1.3	\$1.3	\$1.4	\$2.8	\$3.8	\$1.8	87.5%	5.9%
Other Non-Compensation Costs	\$5.4	\$6.2	\$6.1	\$5.9	\$5.4	\$4.6	\$5.5	\$3.5	\$5.1	\$5.4	\$6.1	\$6.2	\$0.8	14.1%	1.2%
Total Costs	\$44.0	\$46.3	\$47.8	\$45.2	\$45.3	\$42.8	\$43.0	\$42.5	\$45.8	\$48.7	\$50.9	\$53.8	\$9.8	22.2%	1.8%
Compensation Costs (Salaries + Benefits)	\$24.3	\$25.9	\$26.3	\$25.0	\$24.7	\$24.5	\$25.4	\$27.6	\$28.8	\$29.7	\$31.2	\$31.4	\$7.2	29.4%	2.4%
Compensation Costs as % of Total Costs	55.1%	56.0%	55.0%	55.4%	54.6%	57.2%	59.1%	65.0%	62.8%	61.1%	61.3%	58.4%	3.3%		
FTEs	469	471	471	457	442	448	461	458	464	493	492	492	23	4.9%	0.4%
(\$ Actual)															
Average Salaries per FTE	\$39,082	\$40,501	\$40,557	\$41,287	\$41,583	\$40,679	\$39,820	\$43,149	\$44,588	\$42,761	\$43,517	\$43,185	\$4,103	10.5%	0.9%
Average Benefits per FTE	\$12,692	\$14,507	\$15,253	\$13,526	\$14,321	\$13,959	\$15,312	\$17,124	\$17,452	\$17,500	\$19,924	\$20,702	\$8,010	63.1%	4.5%
Average Compensation Costs per FTE	\$51,775	\$55,008	\$55,810	\$54,814	\$55,904	\$54,639	\$55,132	\$60,272	\$62,039	\$60,261	\$63,441	\$63,887	\$12,113	23.4%	1.9%
Criminal Cases	24,887	24,534	24,102	21,830	20,705	19,116	18,367	16,571	16,489		15,948	17,642	(7,245)	-29.1%	-3.1%
All Cases	75,773	84,555	81,866	78,760	75,057	71,981	67,392	59,139	53,414		47,429	47,824	(27,949)	-36.9%	-4.1%
% of Criminal Cases	32.8%	29.0%	29.4%	27.7%	27.6%	26.6%	27.3%	28.0%	30.9%		33.6%	36.9%	4.0%		
Criminal Cases per FTE	53	52	51	48	47	43	40	36	36		32	36	(17)	-32.4%	-3.5%
Total Adult Felony Drug Charges					12,643	11,753	11,081	10,420	9,162	7,155	7,540	9,579	(3,064)	-24.2%	-3.9%
Total Adult Felony Charges					47,736	44,835	41,153	38,459	37,081	35,718	36,322	35,377	(12,359)	-25.9%	-4.2%
% of Adult Felony Drug Charges					26.5%	26.2%	26.9%	27.1%	24.7%	20.0%	20.8%	27.1%	0.6%		

Note 1: “Assigned Counsel” represents the sum of “Assigned Counsel-Court of Common Pleas,” “Assigned Counsel-Court of Appeals,” “Assg. Cnsl/Psych. Evalt.,” and “Assigned Counsel-Juvenile Court” expenditures.

Note 2: “Space Maintenance” and “Contract Services” costs were excluded in McGuire’s “affected costs.” See McGuire Report, Appendix IV.C-5.2.

Note 3: Criminal cases data is not available for 2015. Complete criminal charge data is not available prior to 2010.

Note 4: Absolute change, percent change, and CAGR metrics for criminal charges are calculated based on the years data was available.

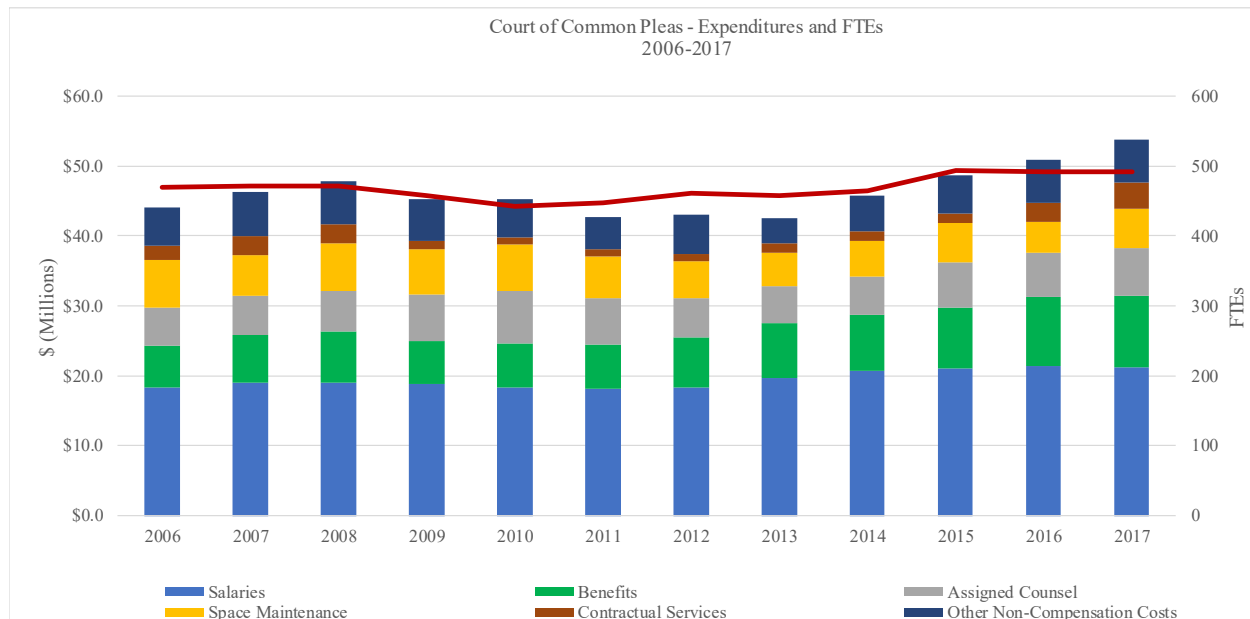
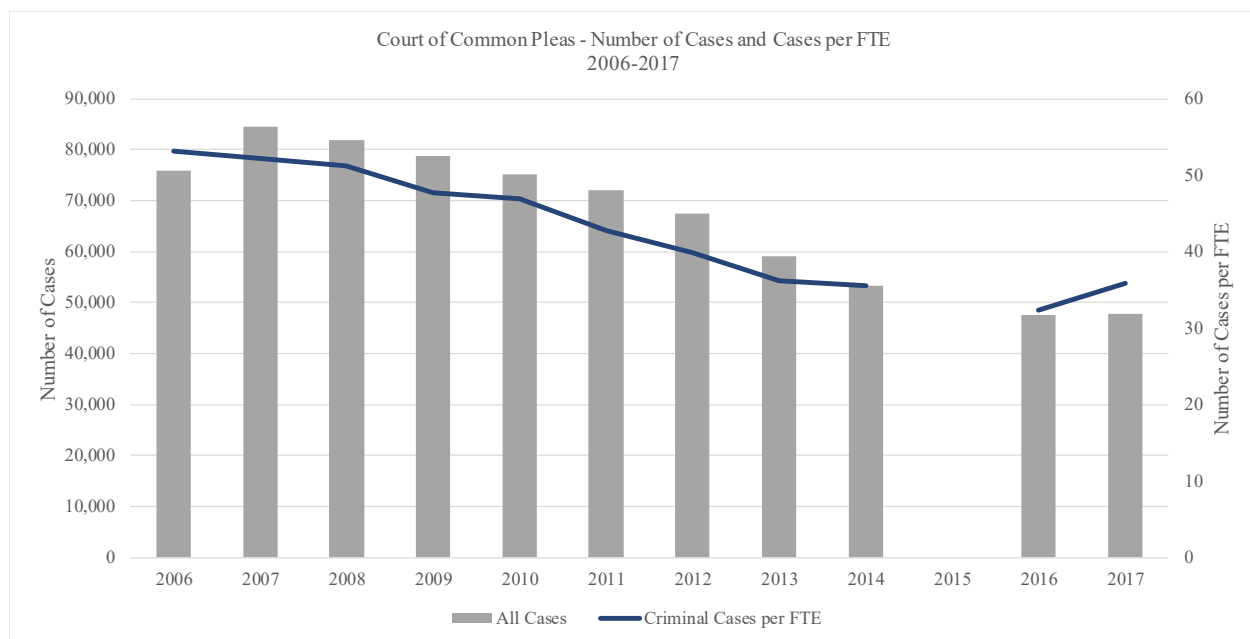
Note 5: Misdemeanor charges for adult offenders was removed from the criminal charge data to reflect the cases represented in the Court of Common Pleas.

Note 6: Drug charges include the following charges: 2923.241, 2925.02, 2925.03, 2925.041, 2925.05, 2925.07, 2925.09, 2925.11, 2925.13, 2925.22, 2925.23, 2925.24, 2925.31, 2925.37, and 4729.51.

Sources: CUYAH_014627783; CUYAH_001714366; CUYAH_000097414; Court of Common Pleas 2006-2017 Annual Reports.

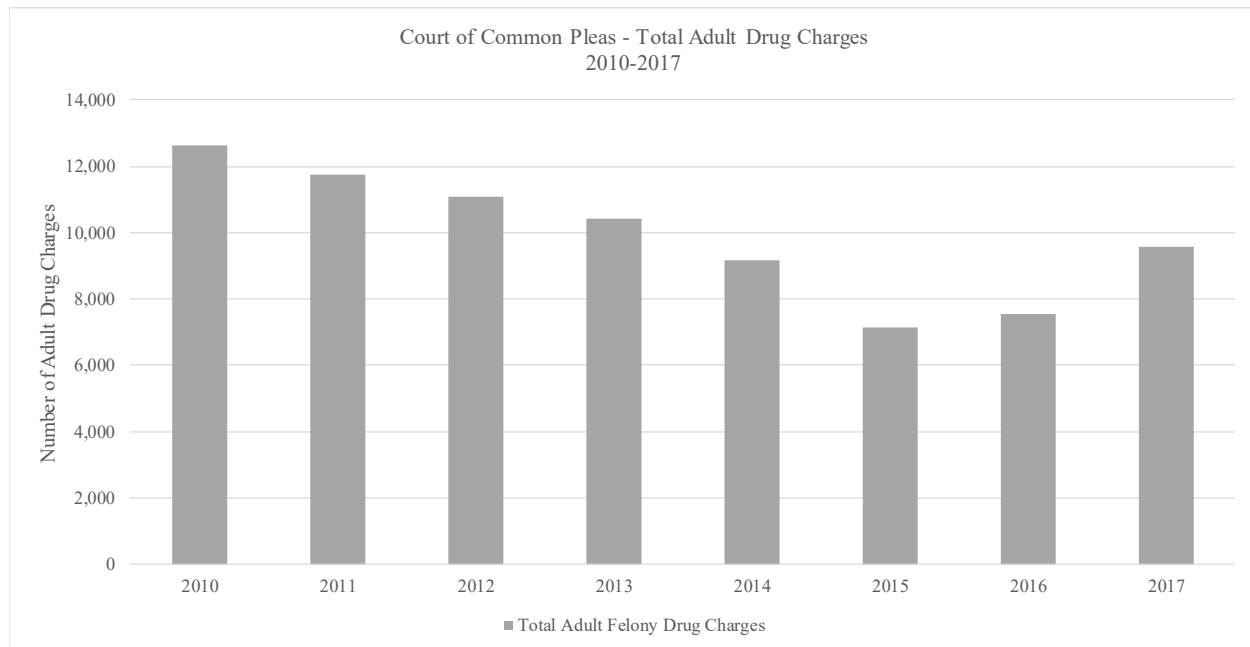
These expenditures and key metrics are further exhibited in the graphs below:

HIGHLY CONFIDENTIAL

Graph V.C.5-1: Expenditures and FTEs**Graph V.C.5-2: Cases**

Note: Criminal cases data not available for 2015.

HIGHLY CONFIDENTIAL

Graph V.C.5-3: Drug Charges

In my review of the expenditures and key metrics of the Court of Common Pleas, I noted the following:

- Total compensation costs (salaries and benefits) fluctuated between 2006 and 2017, but increased overall by \$7.2 million (or 29.4%).
- The CAGR of average compensation per FTE was 1.9%, which is slightly below the average inflation rate of state and local government employees' compensation of 2.4%.¹¹³
- Assigned Counsel costs increased by \$1.4 million (or 24.5%) from 2006 to 2017.
- There was a net increase of 23 FTEs (or 4.9%) between 2006 and 2017.
- Criminal cases per FTE decreased by 17 cases (or 32.4%) from 2006 to 2017.

¹¹³ See U.S. Bureau of Labor Statistics, Employment Cost Index (NAICS basis), 2007-2017 – Series I.D. CIU3010000000000Q (Not Seasonally Adjusted).

HIGHLY CONFIDENTIAL

Compensation Costs

Total compensation costs (salaries and benefits) increased by \$7.2 million (or 29.4%) from 2006 to 2017 and represent 58.4% of total expenditures during the period.¹¹⁴

Compensation costs are “inclusive of the 34 elected judges who are paid by the State of Ohio.”¹¹⁵ Based on the available information, I do not have insight into the actual amount reimbursed by the State.

There was a net increase of 23 FTEs between 2006 and 2017. The headcount fluctuated over this period, including a net decrease of 11 FTEs between 2006 and 2013 and a net increase of 34 FTEs between 2013 and 2017.

Based on my review of the headcount data,¹¹⁶ the Court of Common Pleas is organized into five groups: (1) Common Pleas - Judicial, (2) Magistrates, (3) Court Services, (4) Common Pleas – Probation, and (5) Common Pleas - Treatment Alternatives to Street Crime (“TASC”) Unit. Common Pleas – Probation had a net increase of 11 FTEs from 2006 to 2017. Common Pleas – Judicial had a net increase of 7 FTEs from 2006 to 2017. Court Services had a net decrease of 23 FTEs from 2006 to 2017. The Magistrates category had a net decrease of 3 FTEs from 2006 to 2017. The Common Pleas - TASC Unit had a net increase of 31 FTEs from 2006 to 2017.

The TASC Unit attempts to “link drug-involved offenders to therapeutic interventions of drug treatment programs.”¹¹⁷ The unit provides assessment and case management services to four existing specialty dockets: (1) Drug Court, (2) Recovery Court, (3) Veteran’s Treatment Court, and (4) Greater Cleveland Drug Court.¹¹⁸ The TASC Unit appears to be significantly

¹¹⁴ See CUYAH_014627783.

¹¹⁵ See Court of Common Pleas 2017 Annual Report, “Fiscal Report” section.

¹¹⁶ See CUYAH_001714366.

¹¹⁷ See Court of Common Pleas 2017 Annual Report, “TASC Specialized Docket” section.

¹¹⁸ See Court of Common Pleas 2017 Annual Report, “TASC Specialized Docket” section.

HIGHLY CONFIDENTIAL

funded by block grants.¹¹⁹ Additionally, there were no budget increases related to the TASC Unit identified in Cuyahoga's listing of county resolutions related to opiate addictions.¹²⁰

The total number of cases seen by the Court of Common Pleas decreased by 27,949 from 2006 to 2017 and the total number of criminal cases decreased by 7,245 over the same period. To gain insight into the types of criminal cases prosecuted by the county in the Court of Common Pleas, I referred to the Office of the Prosecutor's adult criminal charge data. I noted that the total number of adult felony drug charges declined by 3,064 between 2010 and 2017 due to a decline in adult felony drug trafficking charges.¹²¹ However, despite this decline in total drug charges and cases, the Court of Common Pleas added FTEs during the period. Therefore, although there was an increase in FTEs in the Court of Common Pleas, that increase does not appear to be related to drug crimes, nor did I find any evidence otherwise that the increase related to drugs or opioids. Further, both the expansion of the Drug Court and the start of the Recovery Court are largely funded by grants.

Based on the above and my review of the available information, I determined there were no incremental increases in compensation costs related to prescription opioids or opioids generally.

Assigned Counsel Costs

Assigned Counsel costs increased by \$1.4 million (or 24.5%) from 2006 to 2017 and represent 13.3% of total expenditures during the period.¹²² An assigned counsel is a court-appointed attorney who represents an indigent individual.¹²³ The county has not provided any insight into the types of cases that were related to these attorney fees. Therefore, based on my review of the available information, I determined there were no incremental increases in

¹¹⁹ See, for example, Cuyahoga 2017 Single Audit, p. 2.

¹²⁰ See CUYAH_000018175.

¹²¹ See CUYAH_000097414.

¹²² See CUYAH_014627783.

¹²³ See <https://definitions.uslegal.com/a/assigned-counsel/>.

HIGHLY CONFIDENTIAL

Assigned Counsel costs related to prescription opioids or opioids generally. Additionally, I note that Assigned Counsel costs are partially reimbursed by the state.¹²⁴

6. Juvenile Court

The Cuyahoga County Juvenile Court is responsible for rehabilitating juveniles, supporting families, and promoting public safety. The major functions of the Juvenile Court include:¹²⁵

- Court Services: Responsible for all legal and clerking functions, information services, and other activities necessary to ensure that court hearing processes are executed in a timely, economical, and all-inclusive manner.
- Probation Services: Assigns and supervises court-ordered youth to participate in special services directed through probation staff.
- Detention Services: Administers the care of all juveniles in the secure detention continuum, including the Detention Center, Shelter Care, and Home Detention.

The Juvenile Court also provides specialized dockets to focus on the needs of the populations served. These specialized dockets include the Juvenile Drug Court, Family Drug Court, Mental Health Court, and Re-entry court.¹²⁶

The information I considered in my analysis of the Juvenile Court included, but was not limited to, the following:

- County budgets and CAFRs
- Juvenile Court annual reports
- Budget request memoranda
- Headcount data
- Publicly available information

¹²⁴ See Court of Common Pleas 2017 Annual Report, “Fiscal Report” section.

¹²⁵ See Cuyahoga 2018/2019 Budget Plan, “Juvenile Court” section.

¹²⁶ See Juvenile Court 2017 Annual Report, p. 20.

HIGHLY CONFIDENTIAL

a) Identification of Direct Costs

Based on my review of the available information, I identified no direct costs related to prescription opioids for the Juvenile Court. As stated above, although this case involves claims related to harm caused by prescription opioids, I have also analyzed costs associated with opioid abuse generally in the event that the Court finds damages warranted beyond the harms caused solely by prescription opioid abuse. Thus, regarding opioids generally, I identified total direct costs of \$317,793 for the Juvenile Court.¹²⁷ These direct costs related to the hiring of three additional magistrates to hear the private custody dockets for children placement foster care and opioid abuse in 2017. I found no evidence which indicates the hiring of the additional magistrates was specific to cases related to prescription opioids.

b) Identification and Analysis of Incremental Costs

Based on my review of the available information, I identified no incremental costs specifically relating to prescription opioids for the Juvenile Court. As stated above, although this case involves claims related to harm caused by prescription opioids, I have also analyzed costs associated with opioid abuse generally in the event that the Court finds damages warranted beyond the harms caused solely by prescription opioid abuse. Thus, regarding opioids generally, I identified total incremental costs of \$122,760 for the Juvenile Court. My analysis of incremental costs is presented below.

Table V.C.6-1 is a summary of expenditures and key metrics of the Juvenile Court for the period 2006 through 2017.

¹²⁷ See Appendix 4 – Cuyahoga County Direct Costs.

HIGHLY CONFIDENTIAL

Table V.C.6-1: Summary of Expenditures and Key Metrics

Juvenile Court (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	A (06-17)	%A (06-17)	CAGR (06-17)
Salaries	\$20.2	\$21.2	\$22.1	\$21.8	\$18.6	\$18.2	\$19.1	\$20.0	\$21.7	\$22.7	\$22.1	\$26.6	\$6.3	31.2%	2.5%
Benefits	\$7.7	\$8.0	\$9.1	\$8.1	\$10.1	\$9.4	\$9.0	\$8.5	\$8.7	\$9.6	\$9.7	\$11.0	\$3.3	43.0%	3.3%
Board&Care-Justice	\$1.7	\$2.9	\$2.8	\$3.4	\$4.9	\$4.9	\$4.5	\$3.5	\$5.2	\$5.7	\$4.7	\$3.5	\$1.8	110.2%	7.0%
Guardian ad Litem Fees	\$1.1	\$1.5	\$1.5	\$1.6	\$1.7	\$1.7	\$1.7	\$1.6	\$1.5	\$1.8	\$1.6	\$1.6	\$0.4	39.2%	3.1%
Shelter Care-Juvenile Court	\$1.3	\$1.4	\$1.4	\$1.2	\$1.6	\$1.5	\$1.8	\$1.3	\$1.8	\$0.6	\$1.8	\$1.6	\$0.3	22.5%	1.9%
Assigned Counsel	\$1.2	\$1.4	\$1.4	\$1.5	\$1.5	\$1.6	\$1.5	\$1.4	\$1.6	\$1.5	\$1.4	\$1.4	\$0.2	15.4%	1.3%
Other Non-Compensation Costs	\$19.3	\$19.0	\$18.1	\$15.8	\$15.5	\$12.3	\$19.6	\$10.0	\$12.7	\$12.4	\$14.2	\$17.7	(\$1.6)	-8.4%	-0.8%
Total Costs	\$52.6	\$55.4	\$56.4	\$53.4	\$53.7	\$49.7	\$57.2	\$46.3	\$53.2	\$54.4	\$55.4	\$63.3	\$10.6	20.5%	1.7%
Compensation Costs (Salaries + Benefits)	\$27.9	\$29.3	\$31.2	\$29.9	\$28.6	\$27.6	\$28.1	\$28.5	\$30.3	\$32.4	\$31.7	\$37.6	\$9.6	34.5%	2.7%
Compensation Costs as % of Total Costs	53.1%	52.8%	55.2%	56.0%	53.3%	55.6%	49.2%	61.5%	57.0%	59.5%	57.3%	59.3%	6.2%		
FTEs	524	543	547	522	482	468	485	478	505	510	508	513	(11)	-2.1%	-0.2%
(\$ Actual)															
Average Salaries per FTE	\$38,625	\$39,106	\$40,396	\$41,690	\$38,499	\$38,991	\$39,408	\$41,773	\$42,910	\$44,596	\$43,421	\$51,782	\$13,157	34.1%	2.7%
Average Benefits per FTE	\$14,664	\$14,806	\$16,573	\$15,544	\$20,866	\$20,062	\$18,616	\$17,762	\$17,151	\$18,861	\$19,024	\$21,419	\$6,754	46.1%	3.5%
Average Compensation Costs per FTE	\$53,290	\$53,912	\$56,969	\$57,235	\$59,365	\$59,054	\$58,025	\$59,535	\$60,061	\$63,458	\$62,445	\$73,201	\$19,911	37.4%	2.9%
Shelter Care Average Daily Population	54	71	55	53	44	42	37	33	36	34	30	25	(29)	-53.7%	-6.8%
Total Cases	27,137	25,829	24,978	25,236	24,180	23,138	21,288	18,671	15,857	13,934	16,252	16,086	(11,051)	-40.7%	-4.6%
Abuse, Dependency, Neglect Cases	1,898	1,443	1,421	1,111	1,663	1,698	1,293	1,212	1,623	1,609	2,186	2,944	1,046	55.1%	4.1%
Court Services FTEs	228	236	235	219	218	195	191	194	204	202	192	194	(34)	-14.9%	-1.5%
Cases per Court Services FTE	119	109	106	115	111	119	111	96	78	69	85	83	(36)	-30.3%	-3.2%

Note 1: Assigned Counsel costs include “Assigned Counsel – Juvenile Court,” “Assigned Counsel – Common Pleas,” and “Assigned Counsel – Court of Appeals.”

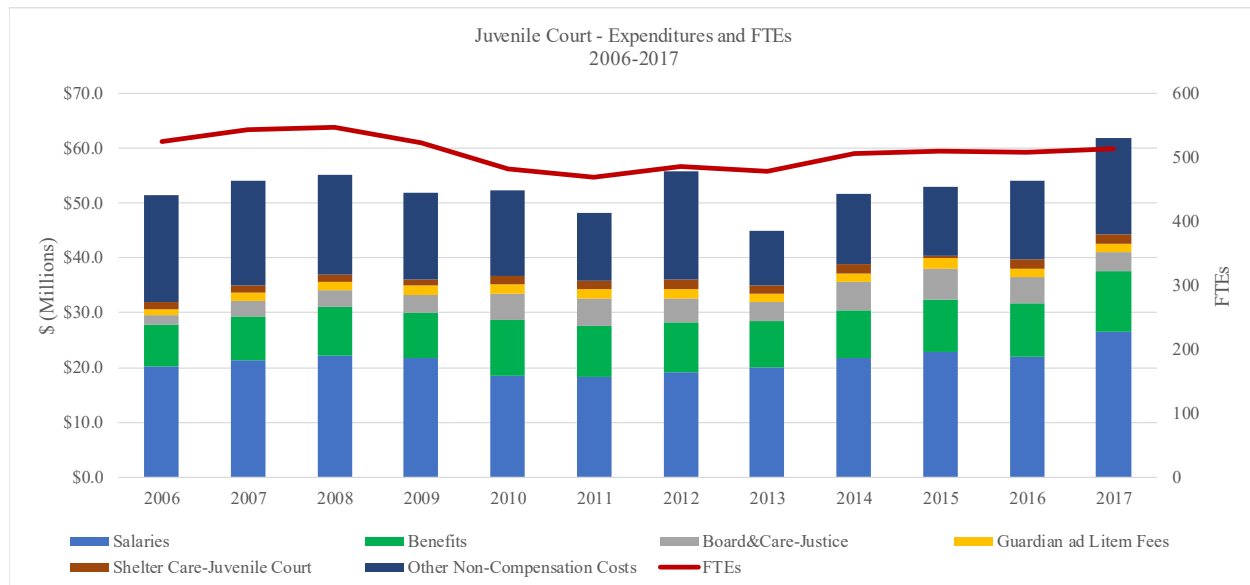
Note 2: Total Cases include both official and bypassed cases from the following categories: (1) Delinquency and Unruliness, (2) Traffic (3) Abuse, Dependency, Neglect, (4) Adult, (5) Custody, (6) Parent-Child Relationship, (7) Support, and (8) Family.

Note 3: Court Services FTEs include Judicial employees, Court Services employees funded by the General Fund, Child Support employees and Administrative Title IV-E employees.

Sources: CUYAH_014627783; CUYAH_001714366; Juvenile Court 2006-2017 Annual Reports.

These expenditures and key metrics are further exhibited in the graph below:

HIGHLY CONFIDENTIAL

Graph V.C.6-1: Expenditures and FTEs

In my review of the expenditures and key metrics of the Juvenile Court, I noted the following:

- Total compensation costs (salaries and benefits) fluctuated between 2006 and 2017, but increased overall by \$9.6 million (or 34.5%). \$5.8 million of the increase occurred in 2017 as a result of the implementation of a salary study.
- The CAGR of average compensation per FTE was only 2.9%, which is slightly above the average inflation rate of state and local government employees' compensation of 2.4%.¹²⁸
- Total FTEs fluctuated between 2006 and 2017, but decreased overall by 11 FTEs. Additionally, Court Services FTEs decreased by 34 between 2006 and 2017.
- Board & Care-Justice (referred to as "Board & Care") costs increased by \$1.8 million (or 110.2%) from 2006 to 2017.
- Guardian ad Litem costs, Assigned Counsel costs, and Shelter Care-Juvenile Court (referred to as "Shelter Care") costs increased by \$0.4 million (or 39.2%), \$0.2 million (or 15.4%), and \$0.3 million (or 22.5%) from 2006 to 2017, respectively.

¹²⁸ See U.S. Bureau of Labor Statistics, Employment Cost Index (NAICS basis), 2007-2017 – Series I.D. CIU301000000000Q (Not Seasonally Adjusted).

HIGHLY CONFIDENTIAL

Compensation Costs

Total compensation costs (salaries and benefits) increased by \$9.6 million (or 34.5%) from 2006 to 2017 and represent 55.8% of total expenditures during the period.¹²⁹ \$5.8 million of this increase occurred in 2017. The increase in compensation costs in 2017 is largely attributable to the implementation of the salary study and compensation plan recommendation by the National Center for State Courts for the majority of staff.¹³⁰

There was a net decrease of 11 FTEs from 2006 to 2017. Of this net decrease, Court Services had a net decrease of 34 FTEs (further, the average number of cases per Court Services FTE declined by 30.3% from 2006 to 2017). Despite this decrease, I noted the hiring of three additional magistrates to hear the private custody dockets for children placement foster care and opioid abuse in 2017.¹³¹ I have included an estimate of these additional magistrates in my calculation of direct costs.

I am not able to determine the specific change in headcounts for Probation Services and Detention Services; however, it appears there was a net increase in FTEs in at least one of these functions. I noted an increase in FTEs in Detention Centers in 2012, but this appeared to have been “due to significant overtime in the detention center due to defects in the facility which required additional detention officers.”¹³² Additionally, I noted that Cuyahoga County Council authorized funding for the hiring of 12 additional detention officers to reduce increased violence caused by Senate Bill 337.¹³³ I did not identify any specific references to increases in FTEs in Probation Services.

Based on the above and the available information, I determined there were no incremental increases in compensation costs related to prescription opioids or opioids generally, in excess of the three additional magistrates.

¹²⁹ See CUYAH_014627783.

¹³⁰ See Juvenile Court 2017 Annual Report, p.26.

¹³¹ See Juvenile Court 2017 Annual Report, p. 7.

¹³² See Cuyahoga 2014/2015 Executive’s Recommended Budget, p. IV-15.

¹³³ Senate Bill 337 changed the prior law and required Juvenile Detention to house 18-20 year-olds that previously were housed in the county jail. See Juvenile Court 2014 Annual Report, pp. 4-5.

HIGHLY CONFIDENTIAL

Board & Care Costs

Board & Care costs at the beginning of the period were small, but increased overall by \$1.8 million from 2006 to 2017 and represent 7.3% of total expenditures during the period.¹³⁴ Based on available information, I am unable to determine the purpose of Board & Care costs including whether these costs are related to opioids. In fact, I only identified one reference to Board & Care costs in the available information; however, it provides no further description of the purpose of the costs other than that it is for contractual services.¹³⁵ As such, I am unable to determine if the Juvenile Court experienced any incremental increases in Board & Care costs related to prescription opioids or opioids generally. Additionally, I noted Board & Care costs are partially reimbursed from Title IV-E funding.¹³⁶

Guardian ad Litem Fees

Guardian ad Litem Fees represent fees paid to an individual appointed by the court to represent the best interest of a child when parents cannot agree on an allocation of parental rights and responsibilities.¹³⁷ Guardian ad Litem may be retained in abuse, dependency, and neglect cases where an adult stands accused of abusing or neglecting a minor.

Additionally, Guardian ad Litem Fees are partially reimbursed by the State Public Defender's office.¹³⁸ Based on the annual reimbursement rates identified in the Cuyahoga County Budget Plans, the county would have only funded \$12.1 million out of \$18.9 million in Guardian ad Litem Fees between 2006 and 2017. Table V.C.6-2 is a calculation of Guardian ad Litem Fees funded by the county.

Table V.C.6-2: Calculation of Guardian ad Litem Fees Funded by Cuyahoga County

Juvenile Court	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Guardian ad Litem Expenditures	\$1,134,782	\$1,480,817	\$1,519,234	\$1,649,933	\$1,685,490	\$1,718,974	\$1,660,675	\$1,564,430	\$1,540,323	\$1,782,192	\$1,577,585	\$1,579,413	\$18,893,848
% County Funded	72.0%	73.5%	75.0%	70.0%	65.0%	65.0%	65.0%	62.5%	60.0%	54.7%	52.7%	56.3%	
County-Funded Guardian and Litem Fees	\$817,043	\$1,088,400	\$1,139,426	\$1,154,953	\$1,095,569	\$1,117,333	\$1,079,439	\$977,769	\$924,194	\$974,265	\$830,861	\$889,736	\$12,088,987

¹³⁴ See CUYAH_014627783.

¹³⁵ See Cuyahoga 2014/2015 Executive's Recommended Budget, p. IV-15.

¹³⁶ See CUYAH_001714459, "Title IV-E Juvenile Court" fund.

¹³⁷ See <http://domestic.cuyahogacounty.us/en-US/Guardian-ad-Litem.aspx>.

¹³⁸ See Cuyahoga 2016/2017 Budget Plan, p. 146.

HIGHLY CONFIDENTIAL

Source: CUYAH_014627783; State of Ohio Public Defender - Reimbursement History for Purposes of Calculating Recoupment (<https://opd.ohio.gov/Portals/0/PDF/Reimbursement/Reimbursement-Percent-History.pdf?ver=2019-02-21-093626-180>).

The county-funded Guardian ad Litem Fees increased from \$0.8 million to \$1.1 million from 2006 to 2007 and were flat through 2017. Total cases declined by 11,051 from 2006 to 2017; and abuse, dependency and neglect cases declined by 455 cases from 2006 to 2007. The increase in Guardian ad Litem Fees from 2006 to 2008 therefore were not related to abuse, dependency and neglect cases. Based on review and analysis of the available information, I determined there were no incremental increases in Guardian ad Litem Fees related to the increase in abuse, dependency, and neglect cases. Even if those fees did relate to the recent increase in abuse, dependency, and neglect cases, I am aware of no evidence that those cases are related to prescription opioids or opioids generally.

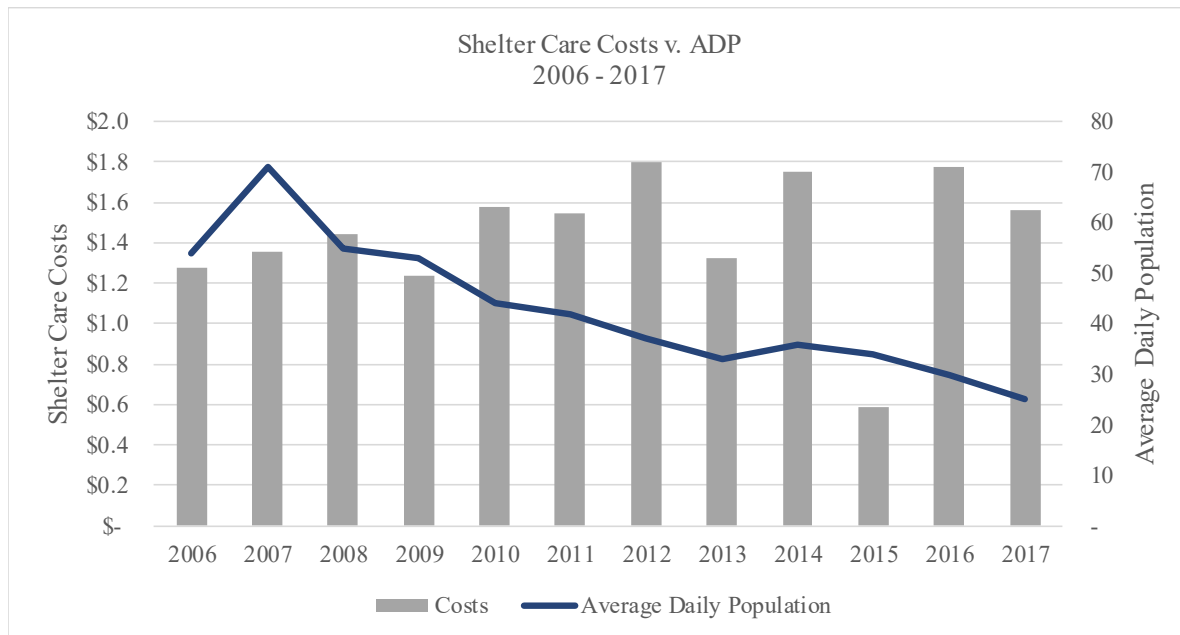
Shelter Care Costs

Shelter Care costs fluctuated between 2006 and 2017, but increased overall by \$0.3 million. Shelter Care can be used as (1) an alternative to secure detention where youth stay in shelter care instead of the detention center until their next court appearance or residential placement¹³⁹ or (2) as pre-dispositional temporary custody in abuse, dependency, and neglect cases.¹⁴⁰ Graph V.C.6-2 is a comparison of the Shelter Care Average Daily Population and Shelter Care costs.

¹³⁹ See <http://juvenile.cuyahogacounty.us/en-US/Shelter-Care.aspx>.

¹⁴⁰ See http://juvenile.cuyahogacounty.us/pdf_juvenile/en-US/LocalRules/Rule%2029.pdf

HIGHLY CONFIDENTIAL

Graph V.C.6-2: Comparison of Shelter Care ADP and Costs

Sources: Juvenile Court 2006-2017 Annual Reports.

As depicted in the graph above, although Shelter Care costs increase overall between 2006 and 2017, the Shelter Care ADP declines throughout the period to a low of 25 juveniles in 2017 indicating that costs increased due to an increase in the cost per juvenile in Shelter Care, and not due to increases in the number of children admitted into Shelter Care. Therefore, I determined there were no incremental increases in Shelter Care costs that were incurred because of an increase in juveniles in Shelter Care custody related to prescription opioids or opioids generally.

Assigned Counsel Costs

Assigned Counsel costs fluctuated between 2006 and 2017, but increased overall by \$0.2 million. Assigned Counsel costs represent indigent defense fees paid by the Juvenile Court. Based on my review of the available information, indigent defense fees are not tracked by case type and could relate to any of the cases seen by the Juvenile Court. However, in an effort to be conservative, I calculated the incremental increase in attorney fees assuming these could be related to an increase in abuse, dependency, and neglect cases, and that those cases could potentially be related to opioids. Similar to Guardian ad Litem Fees, these expenditures are

HIGHLY CONFIDENTIAL

partially reimbursed by the State Public Defender's office. Therefore, each yearly incremental increase is reduced by the percentage (or estimated percentage) reimbursed by the State for that year.

Table V.C.6-3 is my calculation of incremental costs for Assigned Counsel Costs for the Juvenile Court.

Table V.C.6-3: Incremental Assigned Counsel Costs

Juvenile Court	2013	2014	2015	2016	2017	Total
Assigned Counsel Expenditures	\$1,431,377	\$1,550,876	\$1,522,379	\$1,418,161	\$1,433,707	\$7,356,500
Incremental Costs		119,499	91,002	0	2,330	212,831
% County Funded		60.0%	54.7%	52.7%	56.3%	
County-Funded Incremental Cost		\$71,699	\$49,748	\$0	\$1,313	\$122,760

Source: CUYAH_014627783; State of Ohio Public Defender - Reimbursement History for Purposes of Calculating Recoupment (<https://opd.ohio.gov/Portals/0/PDF/Reimbursement/Reimbursement-Percent-History.pdf?ver=2019-02-21-093626-180>).

My calculation of incremental costs is based on a baseline period of 2013 since abuse, dependency, and neglect cases heard in the Juvenile Court originate from Children and Family Services and the number of children in placement began to increase in 2014.¹⁴¹ In total, I calculated an incremental increase of \$122,760 in the county-funded portion of Assigned Counsel costs. My calculation is conservative considering not all abuse, dependency, and neglect cases relate to parental opioid abuse. Even the county's own unsupported State Automated Child Welfare System ("SACWIS") data attributes only 17% of child removals to a drug related removal reason in 2017, and prescription opioids or opioids generally would represent even a smaller percentage.¹⁴²

Other Non-Compensation Costs

Other non-compensation costs include "Space Maintenance," "Contractual Services," "Transfer Out," and other overhead related accounts. Other non-compensation costs decreased by \$1.6 million (or 8.4%) between 2006 and 2017; however, there were significant increases in non-compensation costs in 2012 (increase of \$7.4 million) and 2017 (increase of \$3.6 million).

¹⁴¹ See Children and Family Services 2013-2017 Statistical Reports.

¹⁴² See CUYAH_002442182 (SACWIS removals based on the removal reasons "Drug Abuse of parent," "Prenatal Drug Exposure," "Drug Abuse of child," and "Child affected by substance use").

HIGHLY CONFIDENTIAL

The increase in 2012 is largely due to an increase in “Space Maintenance” costs related to the opening of a new Juvenile Justice Center for Detention Services.¹⁴³ The increase in 2017 is largely related to a one-time Title IV-E “Transfer Out” of \$2.4 million. Therefore, based on the account descriptions and my review of the available information, it does not appear these accounts contain costs related to prescription opioids or opioids generally. Additionally, I note that the McGuire Report does not identify these accounts as “affected costs.”¹⁴⁴

7. Sheriff’s Department – Law Enforcement Division

The Cuyahoga County Sheriff’s Department oversees law enforcement, court security, the service of papers, jail operations, and the extradition and transportation of prisoners.¹⁴⁵ The Sheriff’s Department also maintains full police jurisdiction of all municipalities, villages, and townships within the county.¹⁴⁶ The Sheriff’s Department consists of four main divisions: (1) Law Enforcement, (2) Jail, (3) Protective Services, and (4) Operations.¹⁴⁷ The county has identified Law Enforcement and Jail as the only two divisions of the Sheriff’s Office that have been impacted by the opioid crisis.¹⁴⁸ This section of my report addresses the Law Enforcement Division. The next section of my report addresses the Jail Division.

The Law Enforcement Division consists of the Detective Bureau, Narcotics Taskforce, and various patrol, community policing, and criminal records units.¹⁴⁹ Many of the units within the Law Enforcement Division have developed partnerships with federal, state, and local law enforcement partners.¹⁵⁰ These units include the Detective Bureau and Narcotics Taskforce.¹⁵¹

¹⁴³ See Cuyahoga 2012/2013 Recommended Budget, p. IV-7.

¹⁴⁴ See McGuire Report, Appendix IV.C-2.3.

¹⁴⁵ See <https://sheriff.cuyahogacounty.us/en-US/home.aspx>.

¹⁴⁶ See <https://sheriff.cuyahogacounty.us/en-US/home.aspx>.

¹⁴⁷ See 30(b)(6) deposition of Maggie Keenan dated January 18, 2018, pp. 46:25-47:14.

¹⁴⁸ See 30(b)(6) deposition of Maggie Keenan dated January 18, 2018, pp. 47:17-48:10.

¹⁴⁹ See <https://sheriff.cuyahogacounty.us/en-US/home.aspx>.

¹⁵⁰ See <https://sheriff.cuyahogacounty.us/en-US/Law-Enforcement.aspx>.

¹⁵¹ The Detectives Bureau unit is responsible for investigations and extraditions (see https://sheriff.cuyahogacounty.us/pdf_sheriff/en-US/AnnualReports/2017AnnualReport.pdf). The Narcotics unit is responsible for investigations into narcotics trafficking and organizations (see <https://sheriff.cuyahogacounty.us/en-US/narcotics.aspx>).

HIGHLY CONFIDENTIAL

In addition to the Law Enforcement Division, my analysis also considers the Impact Unit, which was formed as part of a Cuyahoga County community policing initiative. The Impact Unit is not part of any specific division of the Sheriff's Department; it is accounted for separately.

The information I considered in my analysis of the Law Enforcement Division and the Impact Unit included, but was not limited to, the following:

- County budgets and CAFRs
- Sheriff Department annual reports
- Expenditure data
- Headcount data
- Criminal charge data
- Relevant depositions and exhibits
- Publicly available information

a) Identification of Direct Costs

Based on my review of the available information, I identified total direct costs of \$35,191 for the Law Enforcement Division and the Impact Unit.¹⁵² These direct costs related to cash disbursements for prescription drug drop boxes in 2015. The Cuyahoga County Rx Drug Drop Box Program was created in 2013 to provide an environmentally friendly way for citizens to dispose of unwanted or unused prescription drugs and reduce the potential for these drugs to be abused.¹⁵³ Therefore, these identified direct costs are all specific to prescription opioids.

b) Identification and Analysis of Incremental Costs

Based on my review of the available information, I did not identify any incremental costs for the Law Enforcement Division and the Impact Unit between 2011 and 2017, whether related either to prescription opioids or opioids generally. From 2006 to 2010, the Law Enforcement

¹⁵² See Appendix 4 – Cuyahoga County Direct Costs.

¹⁵³ Sheriff's Department 2017 Annual Report, p. 38 and "Rx Drug Drop Box Program" section on the Cuyahoga County website (<https://sheriff.cuyahogacounty.us/en-US/RxDrugDropBoxProgram.aspx>).

HIGHLY CONFIDENTIAL

Division was combined with the County Jail. My analysis of incremental costs is presented below.

Table V.C.7-1 is a summary of expenditures and key metrics of the Law Enforcement Division and the Impact Unit for the period 2006 through 2017.

Table V.C.7-1: Summary of Expenditures and Key Metrics

Law Enforcement and Impact Unit (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Δ (11-17)	%Δ (11-17)	CAGR (11-17)
Salaries						\$9.7	\$10.2	\$10.9	\$11.4	\$13.0	\$12.4	\$12.8	\$3.1	32.1%	4.8%
Benefits						\$3.8	\$4.1	\$4.3	\$4.4	\$5.1	\$4.9	\$5.2	\$1.3	34.9%	5.1%
County Garage - Vehicles						\$0.1	\$0.6	\$0.8	\$0.6	\$0.6	\$0.7	\$0.7	\$0.6	582.5%	37.7%
Contractual Services						\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.1	\$0.5	\$0.5	988.2%	48.9%
Other Expenses						\$0.0	\$0.1	\$0.1	\$0.2	\$0.1	\$0.1	\$0.2	\$0.2	4088.3%	86.4%
Other Non-Compensation Costs						\$0.2	\$1.4	\$0.6	\$0.6	\$0.3	\$0.2	\$0.3	\$0.1	76.4%	9.9%
Total Costs - Law Enforcement and Impact Unit Costs						\$13.8	\$16.4	\$16.7	\$17.1	\$19.2	\$18.5	\$19.7	\$5.9	42.4%	6.1%
Compensation Costs (Salaries + Benefits)						\$13.5	\$14.3	\$15.2	\$15.7	\$18.1	\$17.3	\$17.9	\$4.4	32.9%	4.9%
Compensation Costs as % of Total Expenditures						97.5%	87.5%	91.1%	91.6%	94.2%	93.5%	91.0%	-6.5%		
Law Enforcement and Impact Unit FTEs (\$ Actual)						170	171	181	184	207	199	197	27	15.9%	2.5%
Average Salaries per FTE						\$56,861	\$59,457	\$59,977	\$61,703	\$62,652	\$62,198	\$64,841	\$7,980	14.0%	2.2%
Average Benefits per FTE						\$22,471	\$24,237	\$23,885	\$23,650	\$24,782	\$24,532	\$26,153	\$3,682	16.4%	2.6%
Average Compensation Costs per FTE						\$79,333	\$83,693	\$83,862	\$85,353	\$87,434	\$86,731	\$90,995	\$11,662	14.7%	2.3%
Criminal Charges					3,937	3,736	2,880	3,374	4,006	3,376	3,173	1,900	(2,037)	-51.7%	-10.7%
Criminal Charges per Law Enforcement FTE						22.0	16.8	18.6	21.8	16.3	15.9	9.6	(12)	-56.1%	-12.8%
Drug Charges					627	433	364	400	355	175	228	305	(322)	-51.4%	-5.7%
Total Drug and Impact on Non-Drug Charges					761	592	496	596	616	366	394	405	(356)	-46.8%	-6.1%

Note 1: Expenditure and FTE data for the Law Enforcement Division was combined with County Jail prior to 2011.

Note 2: Absolute change, percent change, and CAGR metrics for criminal charges are calculated based on the years data was available.

Note 3: Criminal charge data include only charges attributable to the Cuyahoga County Sheriff's Department which includes charges from the Prosecutor's Office, Environmental Taskforce, Sheriff's Department, and Juvenile Court.

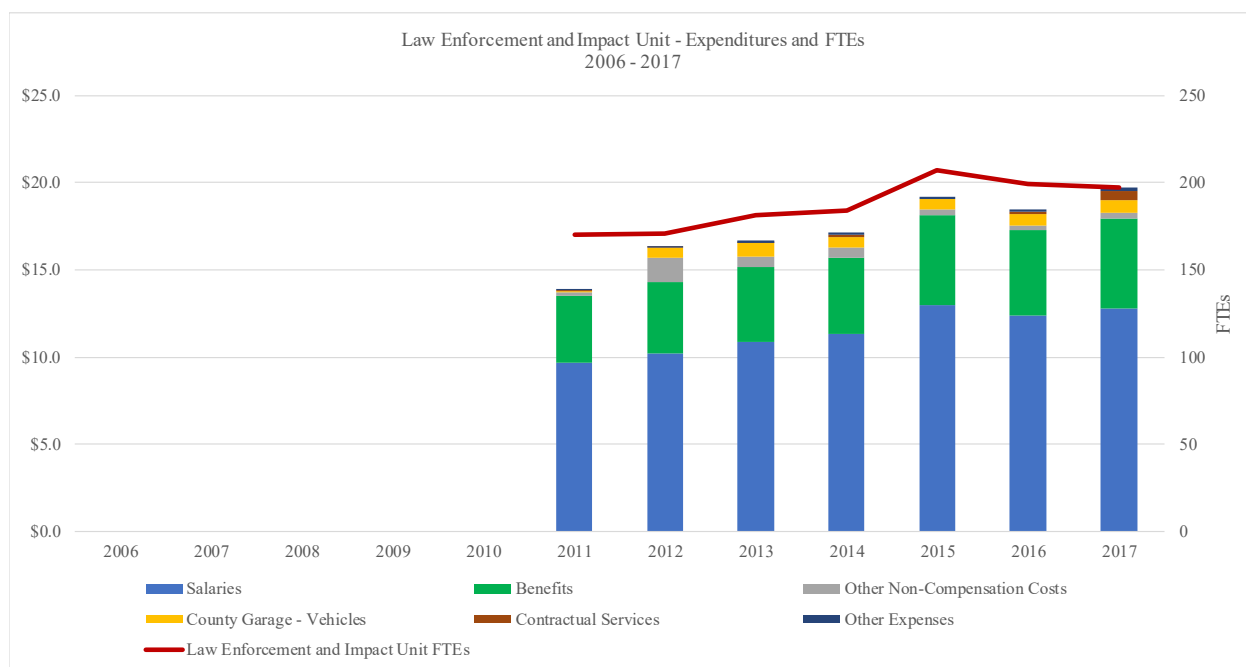
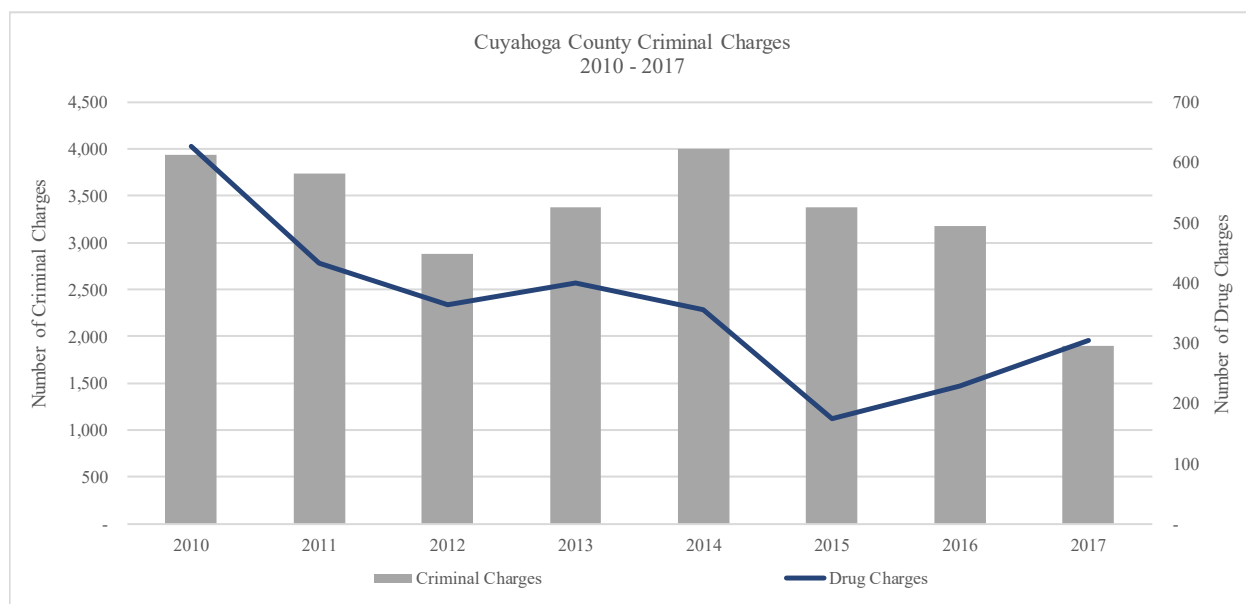
Note 4: Drug Charges include the following charges: 2923.241, 2925.02, 2925.03, 2925.041, 2925.11, 2925.12, 2925.13, 2925.14, 2925.141, 2925.22, 2925.24, 2925.31, 2925.37, and 4729.51.

Note 5: Total impact on non-drug charges are calculated per Cutler's methodology of applying the U.S. Department of Justice defined Drug Attribution Factor to non-drug crimes. See U.S. Department of Justice, National Drug Intelligence Center, "The Economic Impact of Illicit Drug Use on American Society," 2011, Table 1.7 (<https://www.justice.gov/archive/ndic/pubs44/44731/44731p.pdf>).

Sources: CUYAH_014627783; CUYAH_0017366; CUYAH_000097414; Sheriff's Department 2006-2017 Annual Reports.

These expenditures and key metrics are further exhibited in the graph below:

HIGHLY CONFIDENTIAL

Graph V.C.7-1: Expenditures and FTEs**Graph V.C.7-2: Criminal Charges**

In my review of the expenditures and key metrics of the Law Enforcement Division and the Impact Unit, I noted the following:

- Total compensation costs (salaries and benefits) fluctuated between 2011 and 2017, but increased overall by \$4.4 million (or 32.9%).

HIGHLY CONFIDENTIAL

- The CAGR of average compensation per FTE was 2.3%, which is below the average inflation rate of state and local government employees' compensation of 2.4%.¹⁵⁴
- Total FTEs increased from 2011 to 2015 and then decreased after 2015. Between 2011 and 2017, there was a net increase of 27 FTEs (or 15.9%).
- Total criminal charges decreased by 51.7% between 2010 and 2017.
- Total drug charges and impact of non-drug charges decreased by 51.4% and 46.8%, respectively between 2010 and 2017.

Compensation Costs

Total compensation costs (salaries and benefits) increased by \$4.4 million (or 32.9%) from 2011 to 2017 and represent 92.3% of total expenditures during the period.¹⁵⁵ There was a net increase of 27 FTEs from 2011 to 2017 (including an increase of 37 FTEs from 2011 to 2015 and a decrease of 10 employees from 2015 to 2017). This net increase was all attributable to the Law Enforcement Division.

I did not identify any accounting or financial information attributing the increase in compensation costs to opioids. The only evidence on this point was anecdotal and after the fact, in the deposition testimony of Ms. Keenan. Ms. Keenan testified the Sheriff's Department would have incurred overtime related to the transportation of prisoners to outside medical facilities for treatment.¹⁵⁶ However, this testimony did not attribute any headcount increase to opioids, only overtime. In addition, overtime costs related to the transportation of prisoners cannot be entirely attributed to opioids generally, let alone prescription opioids. The Sheriff's Department 2017 Annual Report states:

In 2017 the jail sent out 505 inmates to outside medical appointments, had 296 emergency room visits, and 205 inpatient stays. Inpatient stays were primarily due to complaints of chest or abdominal pain. Outside visits are primarily for services not

¹⁵⁴ See U.S. Bureau of Labor Statistics, Employment Cost Index (NAICS basis), 2007-2017 – Series I.D. CIU301000000000Q (Not Seasonally Adjusted).

¹⁵⁵ See CUYAH_014627783.

¹⁵⁶ See 30(b)(6) deposition of Maggie Keenan dated January 18, 2018, pp. 51:24-52:15.

HIGHLY CONFIDENTIAL

available at the jail, including specialty physician visits, outpatient surgeries, dialysis appointments, and special testing such as MRI and CT scans and suboxone treatment at various community treatment centers.¹⁵⁷

Most of these treatments appear to be unrelated to opioids, prescription or otherwise. This disclosure, moreover, does not identify the number of inmates receiving suboxone treatment, and prior year Sherriff Department Annual Reports do not list, let alone quantify, suboxone treatment as a specific service.¹⁵⁸

Additionally, I noted a small decline in FTEs in the Law Enforcement Division between 2016 and 2017. This decline may be attributed to a reduction in the heroin reduction taskforce.¹⁵⁹

Based on the above and my review of the available information, I determined there were no incremental increases in compensation costs related to prescription opioids or opioids generally.

Non-Compensation Costs

Non-compensation costs increased by \$1.4 million between 2011 and 2017. The increase in non-compensation costs was attributable to increases in “County Garage – Vehicles,” “Contractual Services,” and “Other Expenses.” The McGuire Report does not identify “Contractual Services” or “Other Expenses” as “affected costs.”¹⁶⁰ Additionally, I did not identify any information attributing the increase in “County Garage – Vehicles” (\$0.6 million from 2011 to 2017) to opioids. Therefore, based on my review of the available information, I determined there were no incremental increases in compensation costs related to prescription opioids or opioids generally.

¹⁵⁷ See Sherriff’s Department 2017 Annual Report (CUYAH_000117228), p. 11.

¹⁵⁸ See Sherriff’s Department 2014 Annual Report (CUYAH_000114630), pp. 9-10, Sherriff’s Department 2015 Annual Report, p. 10, and Sherriff’s Department 2016 Annual Report, pp. 11-12.

¹⁵⁹ See Cuyahoga 2016/2017 Budget Plan, p.84.

¹⁶⁰ See McGuire Appendix IV.C-7.3.

HIGHLY CONFIDENTIAL

8. Sheriff's Department – Jail Division

The Jail division of the Cuyahoga County Sheriff's Department ("County Jail") is responsible for the detainment of all felony offenders and certain misdemeanants in the county. The division operates three corrections centers: (1) Downtown Corrections Center, (2) Euclid Annex,¹⁶¹ and (3) Bedford Heights facility.¹⁶² The county has undertaken a regionalization effort to minimize the number of costly independent municipal jails and centralize corrections operations to the county level. The county jails began to receive additional inmates from the City of Bratenahl in 2016, City of Richmond Heights in 2017, and inmates from the Cities of Cleveland and Bedford Heights in 2018.¹⁶³ These municipalities must pay a per-diem fee per inmate to the county for jailing costs. The City of Cleveland pays the county a negotiated rate of \$99 per day per inmate.¹⁶⁴

The information I considered in my analysis of the County Jail included, but was not limited to, the following:

- County budgets and CAFRs
- Sheriff Department annual reports
- Expenditure data
- Headcount data
- Jail bookings data
- Relevant depositions and exhibits
- Publicly available information

a) Identification of Direct Costs

Based on my review of the available information, I did not identify any direct costs for the County Jail, whether related either to prescription opioids or opioids generally.

¹⁶¹ See http://executive.cuyahogacounty.us/pdf_executive/en-US/PressReleases/2014/RegionalJailAssntFinal-07-2014.pdf.

¹⁶² See <https://sheriff.cuyahogacounty.us/en-US/corrections.aspx>.

¹⁶³ See <http://executive.cuyahogacounty.us/en-US/Cleveland-Prisoners-Transfer.aspx>.

¹⁶⁴ See <http://executive.cuyahogacounty.us/en-US/Jail-Regionalization.aspx>.

HIGHLY CONFIDENTIAL

b) Identification and Analysis of Incremental Costs

Based on my review of the available information, I did not identify any incremental costs for the County Jail between 2006 and 2017, whether related either to prescription opioids or opioids generally. My analysis of incremental costs is presented below.

Table V.C.8-1 is a summary of expenditures and key metrics of the County Jail for the period 2006 through 2017.

Table V.C.8-1: Summary of Expenditures and Key Metrics

County Jail (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Δ (11-17)	% Δ (11-17)	CAGR (11-17)
Salaries						\$30.4	\$31.1	\$32.8	\$33.9	\$38.4	\$36.5	\$37.4	\$7.0	23.1%	3.5%
Benefits						\$13.1	\$13.9	\$13.4	\$13.4	\$15.3	\$14.2	\$15.3	\$2.2	16.8%	2.6%
Space Maintenance						\$7.6	\$7.4	\$11.5	\$10.1	\$10.8	\$9.4	\$10.1	\$2.5	32.2%	4.8%
Contractual Services						\$3.1	\$2.4	\$2.2	\$2.8	\$2.9	\$3.5	\$4.3	\$1.2	38.1%	5.5%
Other Non-Compensation Costs						\$3.4	\$3.8	\$4.0	\$4.0	\$3.7	\$4.8	\$3.9	\$0.5	14.5%	2.3%
Total Costs						\$57.6	\$58.7	\$63.8	\$64.2	\$71.1	\$68.5	\$70.9	\$13.4	23.2%	3.5%
Compensation Costs (Salaries + Benefits)						\$43.5	\$45.0	\$46.2	\$47.4	\$53.7	\$50.7	\$52.7	\$9.2	21.2%	3.3%
Compensation Costs as % of Total Costs						75.5%	76.7%	72.3%	73.7%	75.5%	74.0%	74.3%	-1.2%		
County Jail FTEs (excluding Euclid Jail)						720	722	735	730	760	736	722	2	0.3%	0.0%
Euclid Jail FTEs										23	28	43			
Total Jail FTEs						720	722	735	730	783	764	765	45	6.3%	1.0%
(\$ Actual)															
Average Salaries per FTE						\$42,187	\$43,129	\$44,606	\$46,501	\$49,055	\$47,729	\$48,891	\$6,705	15.9%	2.5%
Average Benefits per FTE						\$18,166	\$19,248	\$18,193	\$18,392	\$19,487	\$18,634	\$19,975	\$1,809	10.0%	1.6%
Average Compensation Costs per FTE						\$60,353	\$62,376	\$62,800	\$64,894	\$68,542	\$66,364	\$68,867	\$8,514	14.1%	2.2%
Total Jail Bookings	27,867	26,446	26,461	26,519	29,131	26,161	25,324	23,900	25,060	25,279	26,202	27,414	(453)	-1.6%	-0.1%
Out-of-County Inmate Bookings									985	2,141	2,244	2,302			
Jail Bookings net Out-of-County Inmates	27,867	26,446	26,461	26,519	29,131	26,161	25,324	23,900	24,075	23,138	23,958	25,112	(2,755)	-9.9%	-0.9%
Jail Bookings - Charges	52,399	50,657	44,696	42,957	45,783	41,976	45,830	42,262	45,422	43,059	42,905	45,405	(6,994)	-13.3%	-1.3%
Jail Bookings - Drug Charges	15,973	14,418	12,313	10,696	10,073	9,036	9,102	7,612	8,124	6,450	6,350	6,884	(9,089)	-56.9%	-7.4%
Drug Charges as % of All Charges	30.5%	28.5%	27.5%	24.9%	22.0%	21.5%	19.9%	18.0%	17.9%	15.0%	14.8%	15.2%			
Charges per Booking	1.9	1.9	1.7	1.6	1.6	1.6	1.8	1.8	1.8	1.7	1.6	1.7			

Note 1: The Euclid Jail regionalized into county operations in 2015, Bratenahl PD in 2016, and Richmond Heights and Bedford Heights in 2017.

Note 2: Absolute change, percent change, and CAGR metrics for bookings and charges are calculated based on the years data was available.

Note 3: Jail Bookings represent the unique bookings processed, annually; Jail Bookings – Charges represent all charges for which individuals were booked, annually; Jail Bookings – Drug Charges represent all drug charges for which individuals were booked, annually.

Note 4: Jail Bookings – Drug Charges include the following charges: 2925.02, 2925.03, 2925.07, 2925.11, 2925.12, 2925.13, 2925.14, 2925.22, 2925.23, 2925.24, 2925.31, 2925.37, and 4729.51.

Note 5: Jail Bookings include violations such as parole violations, probation violations, failure to appear, contempt of court, and witness charges that do not provide detail to an original charge; I cannot determine whether these violations were drug-related.

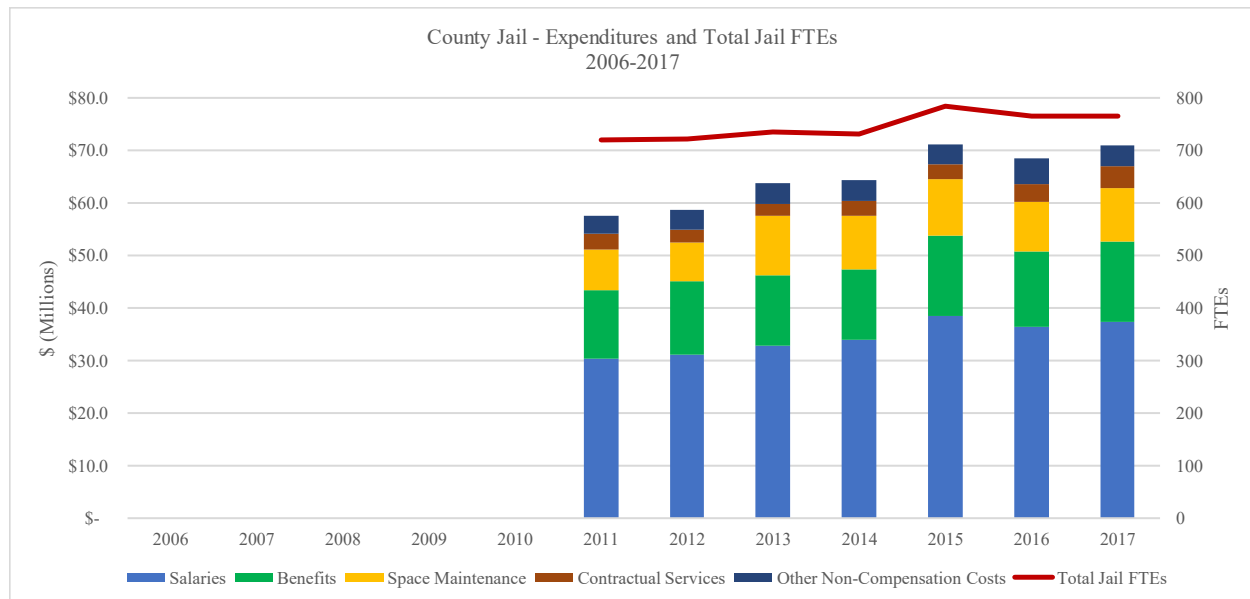
Note 6: Out-of-County Inmate Bookings include bookings from Bratenahl PD, Bedford Heights PD, Euclid PD and Richmond Heights PD.

Sources: CUYAH_014627783; CUYAH_001714366; CUYAH_002503213; Sheriff's Department 2006-2017 Annual Reports.

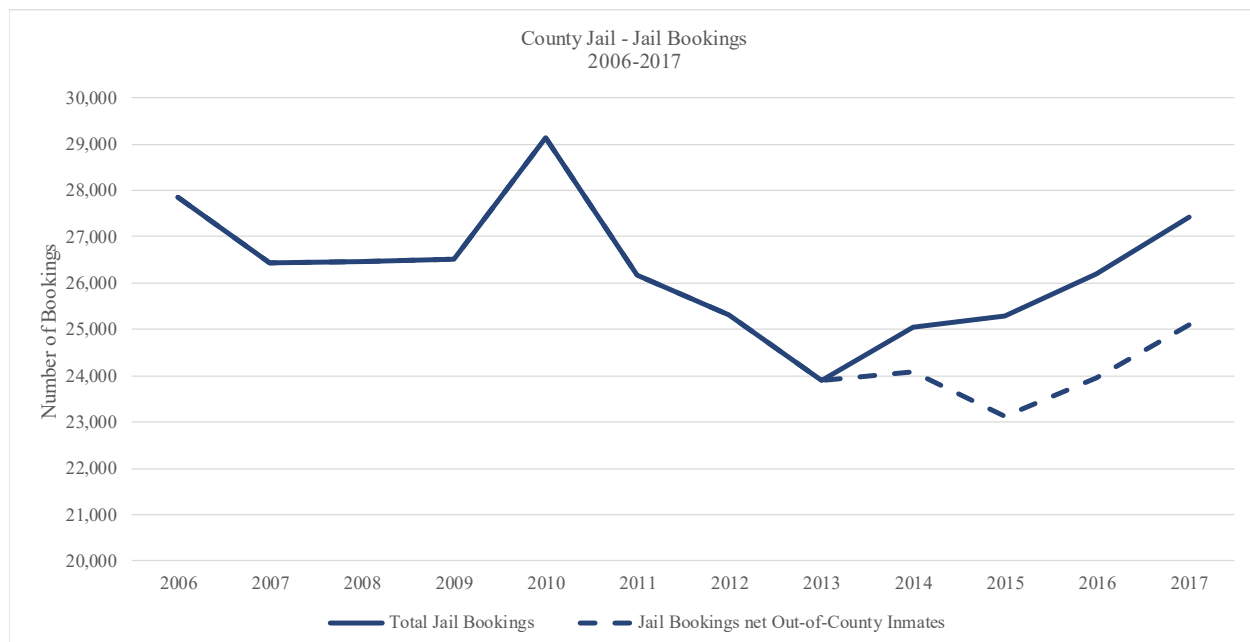
HIGHLY CONFIDENTIAL

These expenditures and key metrics are further exhibited in the graph below:

Graph V.C.8-1: Expenditures and FTEs



Graph V.C.8-2: Jail Bookings



In my review of the expenditures and key metrics of the County Jail, I noted the following:

HIGHLY CONFIDENTIAL

- Total compensation costs (salaries and benefits) fluctuated between 2011 and 2017, but increased overall by \$9.2 million (or 21.2%).
- The CAGR of average compensation per FTE was 2.2%, which is slightly below the average inflation rate of state and local government employees' compensation of 2.4%.¹⁶⁵
- Total jail FTEs fluctuated between 2011 and 2017, but increased overall by 45 FTEs (or 6.3%) between 2011 and 2017.
- Total jail bookings declined 1.6% from 2006 to 2017. This decline would have been even higher (9.9%) if it had not been for the county corrections system regionalization efforts. For example, the Euclid facility began to receive the City of Richmond Heights' arrests in 2017.¹⁶⁶
- Total charges associated with jail bookings declined by 13.3% from 2006 to 2017.
- Total drug charges associated with jail bookings declined by 56.9% from 2006 to 2017.
- In 2006, total drug charges associated with jail bookings constituted 30.5% of all charges. In 2017, total drug charges associated with jail bookings constituted 15.2% of all charges.

Compensation Costs

Total compensation costs (salaries and benefits) increased by \$9.2 million (or 21.2%) from 2011 to 2017 and represent 74.5% of total expenditures during the period.¹⁶⁷ There was a net increase of 45 FTEs from 2011 to 2017. However, this net increase in FTEs was largely attributable to the regionalization of the Euclid Jail into county operations in 2015.¹⁶⁸ In 2016 and 2017, the county increased FTEs at the Euclid Jail by 5 and 15 FTEs, respectively. Out-of-county inmate bookings increased from 985 in 2014 to 2,302 in 2017. The county receives a per-diem fee for out-of-county jail inmates.¹⁶⁹

¹⁶⁵ See U.S. Bureau of Labor Statistics, Employment Cost Index (NAICS basis), 2007-2017 – Series I.D. CIU3010000000000Q (Not Seasonally Adjusted).

¹⁶⁶ See <https://sheriff.cuyahogacounty.us/en-US/corrections.aspx>.

¹⁶⁷ See CUYAH_014627783.

¹⁶⁸ See 2015 Sheriff's Department Annual Report, p.5

¹⁶⁹ See Cuyahoga 2018/2019 Recommended Budget, p.8

HIGHLY CONFIDENTIAL

Based on my review of jail bookings data,¹⁷⁰ total drug charges associated with jail bookings declined by 56.9% from 2006 to 2017. Additionally, in 2006, total drug charges associated with jail bookings constituted 30.5% of all charges compared to 2017 where total drug charges associated with jail bookings constituted 15.2% of all charges. Therefore, any increases in FTEs not attributable to the county corrections system regionalization efforts, do not appear to be related to jail bookings associated with drug charges. And, consequently, any increase in FTEs does not appear related to drugs, let alone prescription opioids or opioids generally.

Based on the above and my review of the available information, I determined there were no incremental increases in compensation costs related to prescription opioids or opioids generally.

Non-Compensation Costs

Non-compensation costs increased by \$4.1 million between 2011 and 2017. The increase in non-compensation costs was attributable to increases in “Space Maintenance” and “Contractual Services.” Based on the account descriptions and my review of the available information, it does not appear these accounts contain costs related to prescription opioids or opioids generally. Additionally, I note that the McGuire Report does not identify these accounts as “affected costs.”¹⁷¹

9. Medical Examiner

The Cuyahoga County Medical Examiner is responsible for the investigation of sudden or unexpected deaths, through scene investigation, autopsy and toxicology examinations, and the provision of laboratory services.¹⁷² The Medical Examiner is divided into three subdivisions: (1) medical examiner operations, (2) coroner’s laboratory, and (3) regional forensic science lab. The Medical Examiner is funded through a variety of sources including: charges for services which include lab fees for autopsies performed for counties outside of Cuyahoga, other intergovernmental contributions from other governmental entities including the City of

¹⁷⁰ See CUYAH_002503213.

¹⁷¹ See McGuire Report, Appendix IV.C-8.3.

¹⁷² See Cuyahoga 2018/2019 Recommended Budget, p. 103.

HIGHLY CONFIDENTIAL

Cleveland and Cuyahoga Metropolitan Housing Authority for work formerly performed by those entities, a General Fund subsidy to the Regional Crime Lab, and the General Fund for overall operations of the Medical Examiner not covered by the program specific areas.¹⁷³

In 2010, “an agreement with the Prosecutor’s office, Sheriff’s Department, and the City of Cleveland Division of Police established the Cuyahoga County Regional Forensic Science Lab.”¹⁷⁴ In January 2015, the Medical Examiner opened its expanded Regional Crime Lab, which provides vital services to quickly identify sources of overdose deaths to prevent future overdoses.¹⁷⁵ Additionally, the Medical Examiner re-accredited its parentage and identification lab and toxicology lab around 2015 and opened a fingerprint lab accepting casework as of October 1, 2015.¹⁷⁶

The information I reviewed in my analysis of the Medical Examiner included, but was not limited to, the following:

- County budgets and CAFRs
- Medical Examiner’s annual statistical reports
- Expenditure data
- FTE data
- Depositions and exhibits of relevant personnel
- Publicly available information

a) Identification of Direct Costs

Based on my review of the available information, I identified no direct costs related to prescription opioids for the Medical Examiner. As stated above, although this case involves claims related to harm caused by prescription opioids, I have also analyzed costs associated with opioid abuse generally in the event that the Court finds damages warranted beyond the harms caused solely by prescription opioid abuse. Thus, regarding opioids generally, I identified total

¹⁷³ See Cuyahoga 2016/2017 Recommended Budget, p. IV-16.

¹⁷⁴ See Cuyahoga 2011 Recommended Budget, p. IV-5.

¹⁷⁵ See Cuyahoga 2016/2017 Recommended Budget, p. IV-17.

¹⁷⁶ See Cuyahoga 2016/2017 Budget Plan, p. 83.

HIGHLY CONFIDENTIAL

direct costs of \$2,636,996 for the Medical Examiner.¹⁷⁷ These direct costs included the following:

- \$364,428 for the heroin and fentanyl related cost commitments for personnel, supplies and testing, and body transport costs in 2015 through 2016.
- \$1,109,407 for the heroin and fentanyl related cost commitments for personnel, equipment, supplies and testing, and body transport costs in 2017.
- \$848,765 for the hiring of seven additional employees in the Regional Crime Lab to assist with the growing heroin epidemic and the recent growth in fentanyl-related and gun-related deaths in 2016 through 2017.
- \$314,396 for the hiring of five additional new employees (four forensic scientists and one pathology assistant) to assist in responding to the opioid crisis in 2018.

I found no evidence which indicates these direct costs were specific to prescription opioids.

Additionally, I identified \$714,439 of general opioid costs for the Medical Examiner not paid for by the county.¹⁷⁸ These general opioid costs were paid for by intergovernmental contributions and other non-county funds.¹⁷⁹ Since these general opioid costs were not the burden of the county, they are excluded from my total direct costs.

b) Identification and Analysis of Incremental Costs

Based on my review of the available information, I did not identify any incremental costs for the Medical Examiner between 2006 and 2017 in addition to my direct costs described above, whether related either to prescription opioids or opioids generally. My analysis of incremental costs is presented below.

Table V.C.9-1 is a summary of expenditures and key metrics of the Medical Examiner for the period 2006 through 2017.

¹⁷⁷ See Appendix 4 – Cuyahoga County Direct Costs.

¹⁷⁸ See Appendix 4 – Cuyahoga County Direct Costs.

¹⁷⁹ See Cuyahoga 2016/17 Recommended Budget, p. IV-16.

HIGHLY CONFIDENTIAL

Table V.C.9-1: Summary of Expenditures and Key Metrics

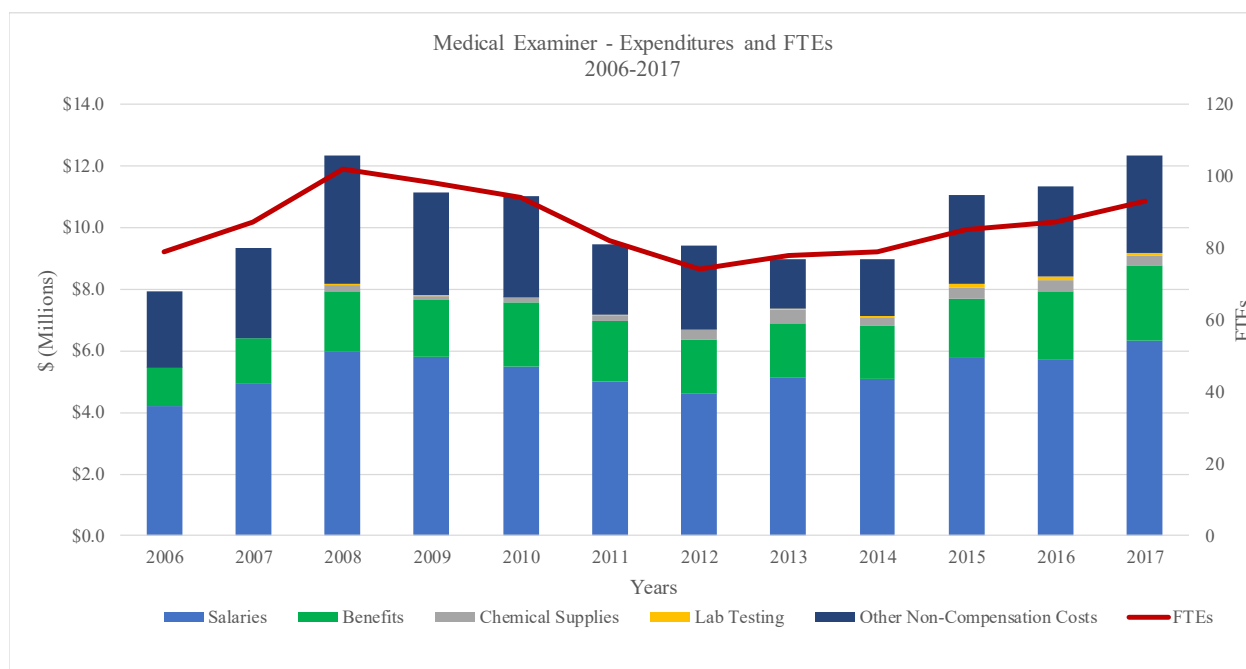
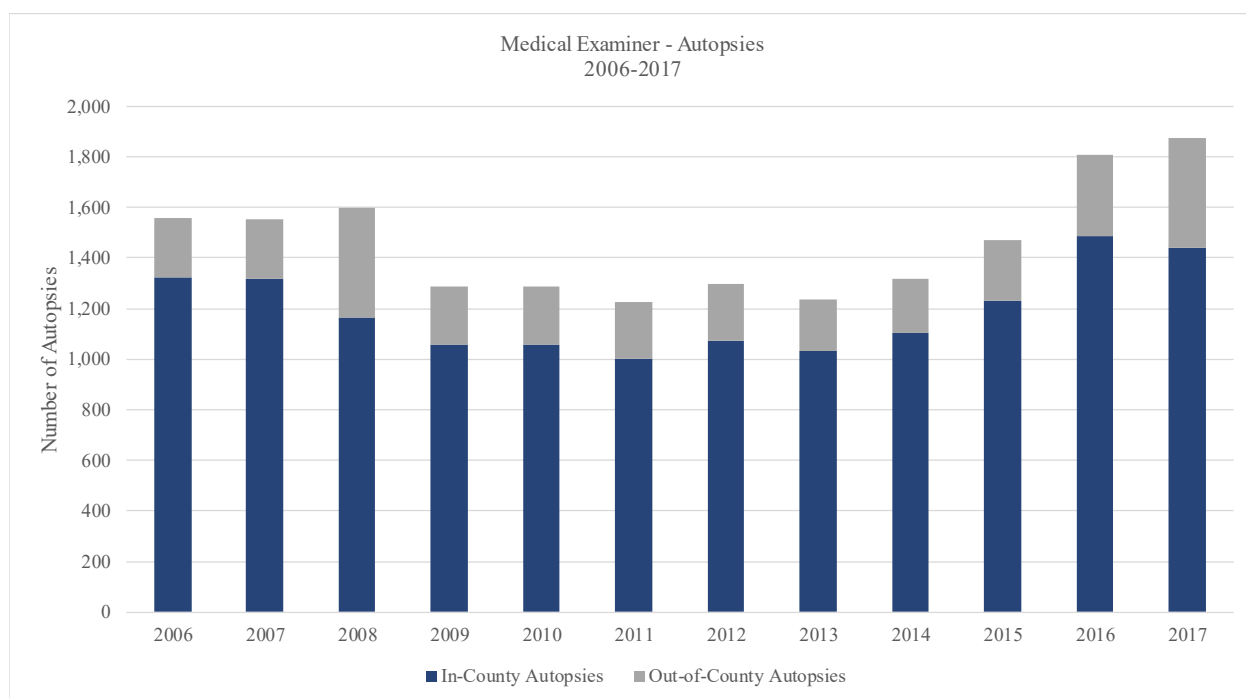
Medical Examiner (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Δ (06-17)	% Δ (06-17)	CAGR (06-17)
Salaries	\$4.2	\$4.9	\$6.0	\$5.8	\$5.5	\$5.0	\$4.6	\$5.1	\$5.1	\$5.7	\$5.7	\$6.3	\$2.1	50.5%	3.8%
Benefits	\$1.3	\$1.5	\$2.0	\$1.8	\$2.1	\$2.0	\$1.8	\$1.7	\$1.7	\$1.9	\$2.2	\$2.5	\$1.2	95.0%	6.3%
Chemical Supplies	\$0.0	\$0.0	\$0.2	\$0.1	\$0.2	\$0.2	\$0.3	\$0.5	\$0.3	\$0.4	\$0.4	\$0.3	\$0.1	59.0%	5.3%
Lab Testing	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	204.0%	13.1%
Other Non-Compensation Costs	\$2.5	\$3.0	\$4.2	\$3.3	\$3.3	\$2.3	\$2.7	\$1.6	\$1.8	\$2.9	\$2.9	\$3.2	\$0.7	28.4%	2.3%
Total Costs	\$7.9	\$9.3	\$12.3	\$11.1	\$11.0	\$9.4	\$9.4	\$9.0	\$9.0	\$11.1	\$11.3	\$12.3	\$4.4	55.6%	4.1%
Compensation Costs (Salaries + Benefits)	\$5.5	\$6.4	\$7.9	\$7.7	\$7.6	\$7.0	\$6.4	\$6.9	\$6.8	\$7.7	\$7.9	\$8.8	\$3.3	60.8%	4.4%
Compensation Costs as a % of Total Costs	68.8%	68.4%	64.3%	68.7%	68.9%	73.8%	67.7%	76.5%	75.8%	69.4%	70.0%	71.1%	2.3%		
FTEs	79	87	102	98	94	82	74	78	79	85	87	93	14	17.7%	1.5%
(\$ Actual)															
Average Salaries per FTE	\$53,085	\$56,650	\$58,561	\$59,365	\$58,135	\$61,056	\$62,366	\$65,909	\$64,356	\$67,600	\$65,855	\$67,868	\$14,784	27.8%	2.3%
Average Benefits per FTE	\$15,964	\$16,815	\$19,132	\$18,707	\$22,382	\$23,902	\$23,691	\$22,147	\$21,671	\$22,675	\$25,190	\$26,446	\$10,482	65.7%	4.7%
Average Compensation Costs per FTE	\$69,048	\$73,465	\$77,693	\$78,072	\$80,517	\$84,958	\$86,057	\$88,056	\$86,027	\$90,274	\$91,045	\$94,314	\$25,266	36.6%	2.9%
In-County Autopsies	1,325	1,320	1,163	1,059	1,059	1,004	1,072	1,033	1,103	1,233	1,489	1,443	118	8.9%	0.8%
Out-of-County Autopsies	231	232	434	231	231	222	224	205	217	240	317	430	199	86.1%	5.8%
Total Medical Examiner Autopsies	1,556	1,552	1,597	1,290	1,290	1,226	1,296	1,238	1,320	1,473	1,806	1,873	317	20.4%	1.7%
In-County % of Total Autopsies	85.2%	85.1%	72.8%	82.1%	82.1%	81.9%	82.7%	83.4%	83.6%	83.7%	82.4%	77.0%	-8.1%		
Out-of-County % of Total Autopsies	14.8%	14.9%	27.2%	17.9%	17.9%	18.1%	17.3%	16.6%	16.4%	16.3%	17.6%	23.0%	8.1%		

Note: Absolute change, percent change, and CAGR metrics for “Chemical Supplies” and “Lab Testing” are calculated based on the period 2008-2017 due to limited to no activity in the accounts prior to 2008.

Sources: CUYAH_014627783; CUYAH_001714366; CUYAH_000099975; Cuyahoga 2008-2018/2019 Budget Plans.

These expenditures and key metrics are further exhibited in the graphs below:

HIGHLY CONFIDENTIAL

Graph V.C.9-1: Summary of Expenditures**Graph V.C.9-2: Autopsies**

In my review of the expenditures and key metrics of the Medical Examiner, I noted the following:

HIGHLY CONFIDENTIAL

- Total compensation costs (salaries and benefits) fluctuated between 2006 and 2017, but increased overall by \$3.3 million (or 60.8%).
- The CAGR of average compensation per FTE was 2.9%, which is slightly above the average inflation rate of state and local government employees' compensation of 2.4%.¹⁸⁰
- Chemical Supplies costs and Lab Testing costs increased by \$0.1 million (or 59.0%) and \$0.1 million (or 204.0%) from 2008 to 2017, respectively.
- Total FTEs increased between 2006 and 2008, decreased between 2008 and 2012 and increased between 2012 and 2017. Between 2006 and 2017, there was a net increase of 14 FTEs (or 17.7%).
- Total out-of-county autopsies increased 86.1% from 2006 to 2017. The county receives fees from out-of-county autopsies.

Compensation Costs

Total compensation costs (salaries and benefits) increased by \$3.3 million (or 60.8%) from 2006 to 2017 and represent 70.1% of total expenditures during the period.¹⁸¹ There was a net increase of 14 FTEs from 2006 to 2017. Notably, FTEs increased from 2006 to 2008, decreased from 2008 to 2012, and then increased from 2012 to 2017.

The increase in FTEs from 2006 to 2008 was primarily to “generate new revenue streams in the form of contracts with local law enforcement and with the State for trace evidence testing and also DNA testing for Parentage and Identification.”¹⁸² Additionally, between 2006 and 2008, compensation costs increased due to the Medical Examiner’s effort to increase salaries in order to minimize the salary discrepancies between government and private salaries and to expand and improve the lab and the services offered to the community.¹⁸³

¹⁸⁰ See U.S. Bureau of Labor Statistics, Employment Cost Index (NAICS basis), 2007-2017 – Series I.D. CIU3010000000000Q (Not Seasonally Adjusted).

¹⁸¹ See CUYAH_014627783.

¹⁸² See Cuyahoga 2008 Recommended Budget, p. III 52.

¹⁸³ See Cuyahoga 2008 Recommended Budget, p. III 54 and Cuyahoga 2010 Recommended Budget, p. III 46.

HIGHLY CONFIDENTIAL

The increase in FTEs from 2013 to 2017 offset the number of FTEs laid-off between 2010 to 2012, as well as the decrease in FTEs due to the consolidation of the information technology staff.¹⁸⁴ However, I did note the Cuyahoga 2016/2017 Budget Plan referenced the addition of seven FTEs in the Regional Crime Lab related to “the growing heroin epidemic and the recent growth in Fentanyl-related and gun-related deaths.”¹⁸⁵ This appears to corroborate with the net 8 FTE additions between 2015 and 2017, when out-of-county autopsies increased from 240 to 430. I have included an estimate of these additional FTEs in my calculation of direct costs.

Based on the above and my review of the available information, I determined there were no incremental increases in compensation costs related to prescription opioids or opioids generally, in excess of the seven FTEs added to the Regional Crime Lab.

Chemical Supplies and Lab Testing Costs

Chemical Supplies and Lab Testing costs increased by \$0.1 million (or 59.0%) and \$0.1 million (or 204.0%) from 2008 to 2017, respectively.¹⁸⁶ However, these costs only represent 3.1% of total expenditures during the period. Chemical Supplies costs fluctuated between 2008 and 2015 and then decreased from 2015 to 2017. Lab Testing costs fluctuated between 2008 and 2012, increased from 2013 to 2015, and then decreased in 2016 and 2017.

Based on my review of the available information, since at least 2007, the Medical Examiner has actively tried to increase its revenues by performing out-of-county autopsies.¹⁸⁷ Additionally, I noted in the Cuyahoga 2014/2015 Recommended Budget, under the “2013 Third Quarter Update and Budget Performance” section, the following disclosure:¹⁸⁸

The Medical Examiners General Fund subsidy has a budget deficit primarily to the shifting of expenses from the general operating

¹⁸⁴ See Cuyahoga 2012/2013 Recommended Budget, p. IV-27.

¹⁸⁵ See Cuyahoga 2016/2017 Budget Plan, p. 83.

¹⁸⁶ There was limited to no activity for Chemical Supplies and Lab Testing expenditures between 2006 and 2008. Therefore, this period was excluded from my analysis.

¹⁸⁷ See Cuyahoga 2007 Recommended Budget, p. III-55 and Cuyahoga 2008 Recommended Budget, p. III-52.

¹⁸⁸ See Cuyahoga 2014/2015 Recommended Budget, p. IV-23.

HIGHLY CONFIDENTIAL

account to the Crime Lab and due to the impact of the expanded rape kit testing as result of the Sexual Assault Initiative.

Therefore, it appears the increases in Chemical Supplies and Lab Testing costs are primarily related to the Sexual Assault Initiative and the county's expansion of its services to increase revenues out-of-county sources. The latter is consistent with the increase in out-of-county autopsies between 2006 and 2017.

Based on the above and my review of the available information, I determined there were no incremental increases in Chemical Supplies and Lab Testing costs related to prescription opioids or opioids generally not otherwise identified in my calculation of direct costs.

Other Non-Compensation Costs

Other non-compensation costs increased by \$0.7 million between 2006 and 2017. The increase in non-compensation costs was primarily attributable to "Space Maintenance," "Equipment Contract Maint[enance] & Repair," and "Equipment&Furniture." Based on the account descriptions and my review of the available information, it does not appear these accounts contain costs related to prescription opioids or opioids generally not otherwise identified in my calculation of direct costs. Additionally, I note that the McGuire Report does not identify these accounts as "affected costs."¹⁸⁹

D. Analysis of the "Affected Divisions" of Summit County

1. ADM Board

The Summit County ADM Board (or ADM) is "responsible for planning, funding, monitoring and evaluating prevention, treatment and recovery services" for Summit County residents experiencing mental health and/or addiction issues.¹⁹⁰ ADM does not directly provide any services, but contracts with local agencies to ensure that Summit County families can receive a continuum of behavioral healthcare, even if clients are uninsured or underinsured. Annually,

¹⁸⁹ See McGuire Report, Appendix IV.C-8.3.

¹⁹⁰ See Summit 2019 Operating Budget, p. 583.

HIGHLY CONFIDENTIAL

ADM “funds treatment services for over 13,000 Summit County residents” in need of assistance.¹⁹¹

The majority of resources used to fund ADM service contracts come from a property tax levy assessed to Summit County residents.¹⁹² The remainder of funds come from state, federal, and other private sources.¹⁹³

The ADM division is comprised of Alcohol and Other Drug (“AoD”) and Mental Health. These AoD services include: detoxification services, residential treatment, and medically assisted treatment services.

The information I considered in my analysis of ADM included, but was not limited to, the following:

- County budgets and CAFRS
- Accounting data from Summit County’s Banner accounting system
- ADM annual reports
- ADM annual budget reviews
- ADM clinical reports
- ADM claims data
- Headcount data
- Depositions and exhibits of relevant personnel
- Publicly available information

a) Identification of Direct Costs

Based on my review of the available information, I identified no direct costs related to prescription opioids for the ADM Board. As stated above, although this case involves claims related to harm caused by prescription opioids, I have also analyzed costs associated with opioid abuse generally in the event that the Court finds damages warranted beyond the harms caused

¹⁹¹ See Summit 2019 Operating Budget, p. 583.

¹⁹² Levy funds have comprised the majority of revenues since 2012 when Medicaid was elevated to the State of Ohio (see ADM 2018 Annual Budget Review, p. 50).

¹⁹³ See Summit 2019 Operating Budget, p. 583.

HIGHLY CONFIDENTIAL

solely by prescription opioid abuse. Thus, regarding opioids generally, I identified total direct costs of \$7,078,148 for the ADM Board.¹⁹⁴ The majority of these direct costs related to expenditures are captured in the Banner accounting system as “Opioid Abatement Strategies,” Opiate Task Force,” and “Recovery Housing - Addiction.”¹⁹⁵ These accounts appear to capture costs outside ADM’s normal provision of services. Additionally, I found no evidence which indicates these accounts are specific to prescription opioid costs.

Table V.D.1-1 is a summary of “Opioid Abatement Strategies,” Opiate Task Force,” and “Recovery Housing - Addiction” expenditures through 2018.

Table V.D.1-1: Banner Expenditures

Accounts	2014	2015	2016	2017	2018	Total
Opioid Abatement Strategies				\$ 2,444,638	\$ 2,632,918	\$ 5,077,556
Opiate Task Force	1,911	34,548	12,609	31,116	42,094	122,279
Recovery Housing - Addiction		96,200		45,387	470,541	612,128
Total - Local Funds	\$ 1,911	\$ 130,748	\$ 12,609	\$ 2,521,141	\$ 3,145,553	\$ 5,811,962

Note: Based on the available information, it appears these expenses were funded by local sources (*see* deposition of Gerald Craig dated January 11, 2019, pp. 190:8-191:6 and “Opioid Abatement Strategies” account invoices (as an example, *see* SUMMIT_002079461).

Source: SUMMIT_002054603.

The county produced invoices related to costs captured in the “Opioid Abatement Strategies” account.¹⁹⁶ Based on my review of these invoices, many of the initiatives discussed as responses to the “opioid epidemic” (e.g., bed and detox expansion) in the ADM annual budget reviews are captured within this account.¹⁹⁷

I did not identify any additional detail related to the “Opiate Task Force” account. However, based on the account name, I assumed conservatively that all costs in this account are general opioid costs. Additionally, the “Recovery Housing - Addiction” account does not reference “opioid” or “opiate” in the account name, but I included the account conservatively as

¹⁹⁴ See Appendix 5 – Summit County Direct Costs.

¹⁹⁵ See SUMMIT_002054603.

¹⁹⁶ As an example, *see* SUMMIT_002079461.

¹⁹⁷ See ADM 2017 Annual Budget Review, p. 5; “Report on Opiate Epidemic Impact” (SUMMIT_002053751).

HIGHLY CONFIDENTIAL

a direct cost because recovery housing was often referenced as a “need” surrounding the “opioid epidemic” regarding recovery support for clients leaving detox or residential treatment.¹⁹⁸

I also identified a document prepared in 2017 by Jennifer Peveich (Associate Director of Operations, ADM) that purports to identify “[o]pioid related costs” for 2014 through 2016 (years before the “Opioid Abatement Strategies” expense account was created).¹⁹⁹ Such costs included expenditures related to “MAT pilot programs, start up for Recovery Housing programs, Ambulatory Detox program expansion, as well as Intensive Outpatient program expansion” and Project DAWN.²⁰⁰ These costs appear to relate to programs outside the normal provision of ADM’s services. Additionally, I found no evidence which indicates these programs are specific to prescription opioids. Table V.D-1-2 is a summary of the pre-2017 abatement related program expenditures.

Table V.D.1-2: Pre-2017 Abatement Expenditures

Identified Costs	2014	2015	2016	Total
Addiction Treatment & Support Capacity Expansion	\$ 526,476	\$ 640,167	\$ 13,563	\$ 1,180,206
DAWN Clinics	-	-	85,980	85,980
Total - Local Funds	\$ 526,476	\$ 640,167	\$ 99,543	\$ 1,266,186

Note: The source document delineates between "Federal & State" and "Local" funds. Only Local funds are reported above.

Source: (30)(b)(6) deposition of Brian Nelsen dated January 24, 2019, Exhibit 2.

I also identified other expense line items within the Banner accounting system that appear to support ADM initiatives related to opioid abuse and dependency; however, the account names explicitly reference a grant.²⁰¹ For example, ATP (Addiction Treatment Program) and Cures Act

¹⁹⁸ See ADM 2018 Annual Budget Review, p. 13 and “Report on Opiate Epidemic Impact” (SUMMIT_002053751).

¹⁹⁹ See (30)(b)(6) deposition of Brian Nelsen dated January 24, 2019, Exhibit 2.

²⁰⁰ This document also includes costs for “Recovery Supports.” It was unclear how this was directly tied to opioids, if it was outside the provision of normal services, or if this was also captured in the “Recovery Housing – Addiction” expense account identified in the Banner Accounting system. Therefore, these amounts have been excluded from my analysis.

²⁰¹ See SUMMIT_002054603, Fund: 20704 / Orgn: 5335 (Alcohol, Drug, & Mental Health) at account numbers 47220 and 47221.

HIGHLY CONFIDENTIAL

are the names of grants received by ADM for opioid-related services.²⁰² Since these general opioid costs were not the burden of the county, they are excluded from my total direct costs.

b) Identification and Analysis of Incremental Costs

Based on my review of the available information, I did not identify any incremental costs for the ADM Board between 2006 and 2018, whether related either to prescription opioids or opioids generally. My analysis of incremental costs is presented below.

Table V.D.1-3 is a summary of expenditures and key metrics of the ADM Board for the period 2006 through 2018.

Table V.D.1-3: Summary of Expenditures and Key Metrics

ADM (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Δ (06-18)	% Δ (06-18)	CAGR (06-18)
Board Administration	\$2.4	\$2.3	\$2.4	\$2.4	\$2.5	\$2.4	\$2.3	\$2.4	\$2.5	\$2.4	\$2.6	\$2.6	\$2.5	\$0.2	7.0%	0.6%
Provider Contracts	\$59.8	\$60.7	\$61.4	\$70.5	\$71.0	\$74.1	\$56.3	\$40.2	\$36.2	\$37.2	\$40.0	\$42.9	\$42.2	(\$17.6)	-29.4%	-2.9%
Total Costs	\$62.1	\$63.1	\$63.8	\$73.0	\$73.5	\$76.5	\$58.6	\$42.6	\$38.7	\$39.6	\$42.6	\$45.4	\$44.7	(\$17.4)	-28.1%	-2.7%
FTEs	23	20	22	22	20	21	22	19	20	20	18	21		(2)	-8.7%	-0.8%
AoD (Non-Medicaid)				\$12.6	\$12.5	\$12.8	\$13.1	\$13.3	\$12.5	\$13.3	\$13.7			\$1.1	8.6%	1.2%
Opioid Caseloads (Clients)	752	802	770	1,059	1,103	1,151	1,252	1,416	1,356	1,488	1,780	1,698		946	125.8%	7.7%

Note 1: Final FTE data was not available for 2018. Data for AoD non-Medicaid expenditures in 2006-2008 and 2017-2018 is not available. Data for opioid caseloads was not available for 2018.

Note 2: Absolute change, percent change, and CAGR metrics for AoD non-Medicaid expenditures and opioid caseloads are calculated based on the years data was available.

Note 3: Provider Contracts includes both Mental Health and AoD expenditures. These expenditures are entitled “Operational Accounts” and “Contract Services” within the ADM Annual Budget Reviews and Summit County Banner Accounting System, respectively.

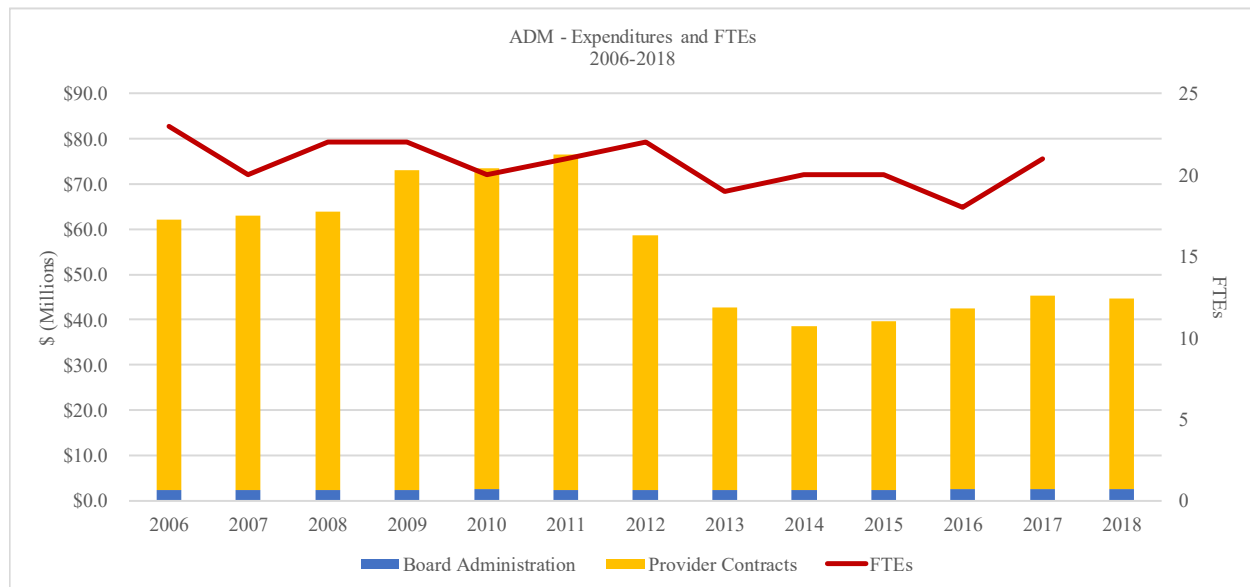
Note 4: Board Administration includes salaries and benefits for FTEs specified above, as well as all other overhead accounts.

Sources: SUMMIT_002054603 (2017-2018); ADM 2006-2016 Annual Budget Reviews, “Financial Statements – Expenditures” section; SUMMIT_001952975; SUMMIT_002053751.

These expenditures and key metrics are further exhibited in the graph below:

²⁰² See ADM 2018 Annual Budget Review, pp. 27 and 60. Note that ATP services include MAT, which can be provided for opioid or alcohol abuse.

HIGHLY CONFIDENTIAL

Graph V.D.1-1: Expenditures and FTEs

Sources: SUMMIT_002054603; SUMMIT_001952975; ADM 2007-2010 and 2013-2018 Annual Budget Reviews, “Financial Statement – Expenditures” section.

Expenditures for ADM are comprised of two main categories: (1) board administration and (2) contract services. ADM has relatively few employees that handle administrative functions, which keeps personnel cost low. Instead, the vast majority of expenditures fall under contract services, where third party agencies are paid for providing addiction and mental health services to clients served under ADM. The remainder of expenditures relate to small overhead and miscellaneous accounts.

Overall, ADM expenditures decreased from 2006 to 2018. The decrease in expenditures is partly attributable to changes in Medicaid billing/reimbursement practices. Beginning July 1, 2012, Medicaid Claims were no longer processed by ADM and instead submitted directly to the Ohio Department of Job and Family Services.²⁰³ Also, effective in 2014, Ohio adopted the Affordable Care Act which expanded Medicaid coverage to a larger percentage of the population, therefore lowering the number of clients served by ADM.²⁰⁴

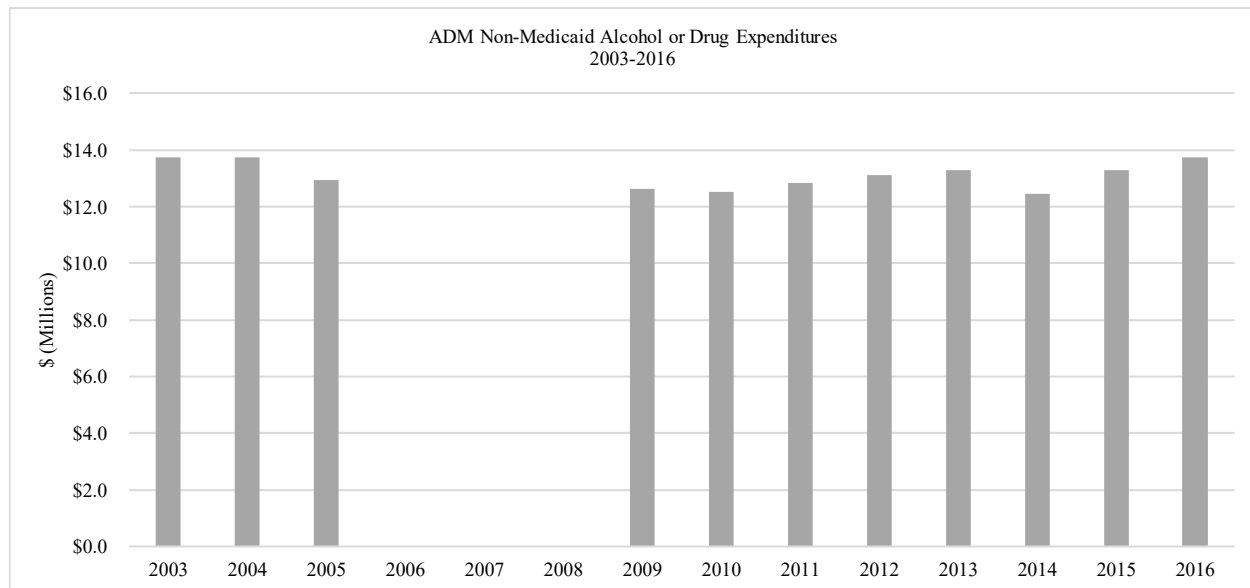
²⁰³ See ADM 2013 Annual Budget Review, p. 19.

²⁰⁴ See ADM 2018 Annual Budget Review, p. 16 and <https://www.kff.org/health-reform/state-indicator/state-activity-around-expanding-medicare-under-the-affordable-care-act/>.

HIGHLY CONFIDENTIAL

Due to these changes in Medicaid, I analyzed non-Medicaid AoD expenditures. These expenditures would include treatment for addictions including opioids funded by ADM (including both levy and state/federal funds). Graph V.D.1-2 depicts the ADM non-Medicaid AoD expenditures for 2003 to 2016 (as available).

Graph V.D.1-2: ADM Non-Medicaid AoD Expenditures



Note: Data for AoD non-Medicaid expenditures in 2006-2008 and 2017-2018 is not available.

Source: ADM 2007-2010 and 2013-2018 Annual Budget Reviews, “Financial Statement – Expenditures” section.

As depicted above, non-Medicaid AoD expenditures remained relatively stable between 2003 and 2016. ADM continued to provide the ordinary provision of services at consistent levels and did not incur costs in excess of the norm beyond my identified direct costs. Additionally, although non-Medicaid AoD expenditure data is not available for 2017 and 2018, I note that \$5.7 million of my identified direct costs relate to this period.

Based on the above and my review of the available information, I determined there were no incremental increases in Board Administration or Provider Contracts costs related to prescription opioids or opioids generally.

HIGHLY CONFIDENTIAL

2. Children Services

Per the Court's recent Orders,²⁰⁵ my analysis of Summit County Children Services is omitted, pending receipt of Children Services case files from Plaintiffs. Upon receipt, I will provide my opinions on Summit County Children Services in a separate supplemental report. I may also update certain summed cost tabulations presented in this report to be inclusive of my supplemental analysis.

3. Prosecutor's Office

The Summit County Prosecutor's Office is comprised of six major divisions: (1) Criminal Division, (2) Civil Division, (3) Juvenile Division, (4) Victim Services, (5) Tax Division, and (6) Child Support Enforcement Agency ("CSEA").²⁰⁶ The last two divisions, Tax and CSEA, are funded through Special Revenue Funds including fees and state and federal funds. The other divisions receive funding from the General Fund.

The Criminal Division and the Juvenile Division are the two divisions that prosecute drug related cases.²⁰⁷ The Criminal Division handles all felony cases in Summit County, and two prosecutors from this division are assigned to each of the ten Common Pleas Courts.^{208,209} The Juvenile Division consists of two separate divisions, Delinquency and Child Protection (Dependency/Neglect).²¹⁰ The Delinquency Division prosecutes all minors charged with

²⁰⁵ See Order re Objections to Discovery Ruling No. 17 from J. Polster dated April 10, 2019 (Dkt. No. 1535) and Order Granting an Extension to File a Single, Supplemental Report on Children's Services' Damages from SM Cohen dated May 7, 2019.

²⁰⁶ See Summit 2018 Operating Budget, pp. 321-346.

²⁰⁷ See deposition of Brad Gessner dated December 3, 2018, p. 237:10-21.

²⁰⁸ Three prosecutors are assigned to the Domestic Violence Court (see Summit 2013 Operating Budget, p. 391).

²⁰⁹ See Summit 2013 Operating Budget, p. 391 and deposition of Brad Gessner dated December 3, 2018, p. 263:17-21.

²¹⁰ See Summit 2013 Operating Budget, p. 392 and Summit 2017 Operating Budget, pp. 324-327.

HIGHLY CONFIDENTIAL

criminal, traffic, or status offense in Summit County.²¹¹ The Child Protection Unit is responsible for all proceedings involving Summit County Children Services.^{212,213}

The Civil Division provides legal services for all county officials, departments, and employees, and handles civil forfeiture cases.²¹⁴ Victim Services is made up of victim advocates who provide services to victims of criminal, domestic, and civil cases.²¹⁵

The information I considered in my analysis of the Prosecutor's Office included, but was not limited to, the following:

- County budgets and CAFRs
- Accounting data from Summit County's Banner accounting system
- Headcount data
- Court of Common Pleas charges and cases data
- Depositions and exhibits of relevant personnel
- Publicly available information

a) Identification of Direct Costs

Based on my review of the available information, I did not identify any direct costs for the Prosecutor's Office, whether related either to prescription opioids or opioids generally. The Prosecutor's Office applied for a grant to establish an Opiate Unit and hire two additional prosecutors for this unit,²¹⁶ but the grant funds were ultimately not received.²¹⁷

²¹¹ See Summit 2017 Operating Budget, p. 326.

²¹² See Summit 2017 Operating Budget, p. 324.

²¹³ A portion of this unit receives reimbursement from Title IV-E funding. These expenses are not included in my analysis (see Summit 2013 Operating Budget, p. 392 and deposition of Brad Gessner dated December 3, 2018, pp. 286:23-287:6).

²¹⁴ See Summit 2013 Operating Budget, p. 393.

²¹⁵ See Summit 2017 Operating Budget, p. 328.

²¹⁶ See deposition of Brad Gessner dated December 3, 2018, pp. 101:7-102:6 and Exhibit 8.

²¹⁷ See deposition of Brad Gessner dated December 3, 2018, p. 157:8-18.

HIGHLY CONFIDENTIAL

b) Identification and Analysis of Incremental Costs

Based on my review of the available information, I did not identify any incremental costs for the Prosecutor's Office between 2006 and 2018, whether related either to prescription opioids or opioids generally. My analysis of incremental costs is presented below.

Table V.D.3-1 is a summary of expenditures and key metrics of the Prosecutor's Office for the period 2006 through 2018.

Table V.D.3-1: Summary of Expenditures and Key Metrics

Prosecutor's Office (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Δ (06-18)	% Δ (06-18)	CAGR (06-18)
Salaries	\$3.8	\$4.3	\$4.5	\$4.1	\$3.5	\$3.5	\$3.4	\$3.6	\$3.6	\$3.7	\$3.6	\$3.8	\$3.8	\$0.0	0.6%	0.1%
Benefits	\$1.1	\$1.2	\$1.4	\$1.4	\$1.3	\$1.2	\$1.2	\$1.3	\$1.3	\$1.4	\$1.4	\$1.4	\$1.3	\$0.2	20.0%	1.5%
Other Non-Compensation Costs	\$0.4	\$0.5	\$0.4	\$0.4	\$0.4	\$0.4	\$0.6	\$0.5	\$0.5	\$0.5	\$0.6	\$0.6	\$0.7	\$0.3	61.9%	4.1%
Total Costs	\$5.4	\$6.0	\$6.4	\$5.9	\$5.2	\$5.1	\$5.2	\$5.4	\$5.4	\$5.6	\$5.5	\$5.8	\$5.9	\$0.5	9.7%	0.8%
Compensation Costs (Salaries + Benefits)	\$4.9	\$5.5	\$5.9	\$5.5	\$4.8	\$4.7	\$4.6	\$4.9	\$4.9	\$5.1	\$5.0	\$5.2	\$5.2	\$0.2	5.0%	0.4%
Compensation Costs as % of Total Costs	91.8%	92.0%	93.2%	93.3%	92.8%	92.8%	89.2%	91.0%	91.4%	91.4%	89.8%	89.2%	87.8%	-3.9%		
FTEs (\$ Actual)	81	87	87	86	76	75	72	70	69	68	65	63	64	(18)	-21.8%	-2.0%
Average Salaries per FTE	\$46,828	\$49,460	\$51,877	\$47,365	\$46,287	\$46,416	\$47,814	\$51,258	\$51,832	\$55,006	\$55,785	\$59,844	\$60,254	\$13,425	28.7%	2.1%
Average Benefits per FTE	\$13,746	\$14,426	\$16,206	\$16,507	\$17,106	\$16,618	\$16,481	\$18,732	\$18,956	\$20,256	\$21,066	\$21,842	\$21,095	\$7,350	53.5%	3.6%
Average Compensation Costs per FTE	\$60,574	\$63,886	\$68,083	\$63,872	\$63,394	\$63,034	\$64,295	\$69,990	\$70,787	\$75,263	\$76,851	\$81,686	\$81,349	\$20,775	34.3%	2.5%
Criminal Cases Assigned/Arraigned	4,997	4,772	4,583	4,108	3,599	3,692	3,823	3,800	4,219	4,062	4,274			(723)	-14.5%	-1.6%
Juvenile - Delinquency & Unruly	6,381	6,067	5,595	4,973	4,150	3,527	3,465	2,965	2,850	2,953	2,944	2,476		(3,905)	-61.2%	-8.2%
Juvenile - Dependency/Neglect	1,276	1,207	1,025	980	915	858	805	832	843	915	1,062	1,022		(254)	-19.9%	-2.0%

Note 1: FTEs represents budgeted FTEs for 2006-2018.

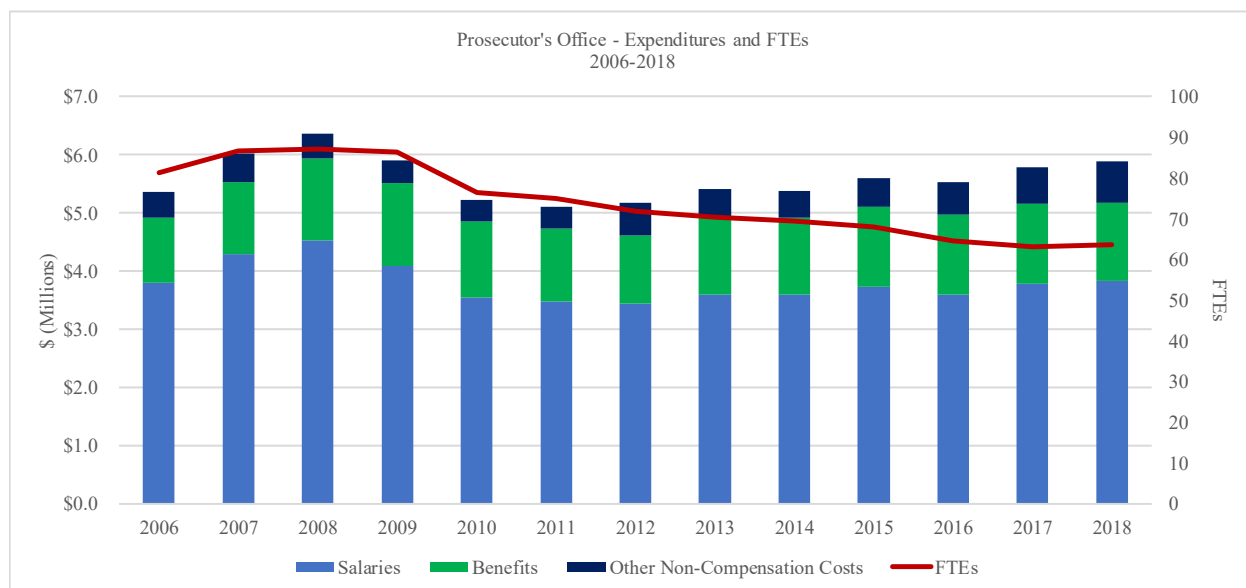
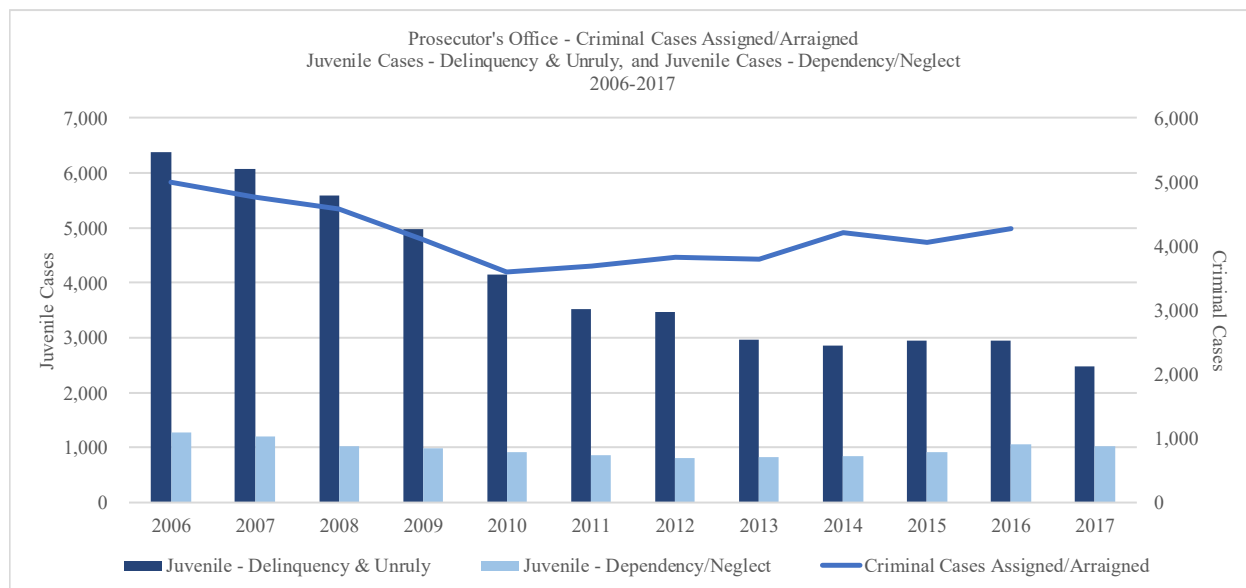
Note 2: Criminal case data was not available for 2017-2018. Juvenile case data was not available for 2018.

Note 3: Absolute change, percent change, and CAGR metrics for criminal/juvenile cases are calculated based on the years data was available.

Sources: SUMMIT_002054603; Summit 2010, 2014, and 2018 Operating Budget; Court of Common Pleas 2006-2016 Annual Reports; Juvenile Court 2016-2017 Annual Reports.

These expenditures and key metrics are further exhibited in the graphs below:

HIGHLY CONFIDENTIAL

Graph V.D.3-1: Expenditures and Budgeted FTEs**Graph V.D.3-2: Cases**

In my review of the expenditures and key metrics of the Prosecutor's Office, I noted the following:

- Total compensation costs (salaries and benefits) fluctuated between 2006 and 2018, but increased overall by \$0.2 million (or 5.0%).

HIGHLY CONFIDENTIAL

- The CAGR of average compensation per FTE was 2.5%, which is slightly above the average inflation rate of state and local government employees' compensation of 2.4%.²¹⁸
- There was a net decrease of 18 budgeted FTEs (or 21.8%) between 2006 and 2018.
- Criminal cases declined by 723 cases (or 14.5%) from 2006 to 2016.²¹⁹
- Juvenile Delinquency & Unruly cases declined by 3,905 cases (or 61.2%) from 2006 to 2017.
- Juvenile Dependency/Neglect cases declined by 254 cases (or 19.9%) from 2006 to 2017.

Compensation Costs

Total compensation costs (salaries and benefits) increased by \$0.2 million (or 5.0%) from 2006 to 2018 and represent 91.2% of total expenditures during the period.²²⁰ The Prosecutor's Office has experienced hiring and personnel count challenges since 2007 due to reduced budgets and personnel leaving for "better paying jobs in both the public and private sectors."²²¹ The only increase in FTEs for the Prosecutor's Office occurred when the county expanded from eight to ten Common Pleas Courts sometime around 2007 or 2008. FTEs were then significantly reduced when the financial crisis hit in 2008/2009.²²² As a result, total budgeted FTEs have steadily declined since 2008 and have not recovered as budgets have remained stagnant except for standard pay raise increases.^{223,224}

²¹⁸ See U.S. Bureau of Labor Statistics, Employment Cost Index (NAICS basis), 2007-2018 – Series I.D. CIU3010000000000Q (Not Seasonally Adjusted).

²¹⁹ New Criminal Cases Filed also declined by 10.7% from 2006 to 2018 (4,821/5,400 -1 = -10.7%). See Court of Common Pleas 2006 and 2016 Annual Reports.

²²⁰ See SUMMIT_002054603.

²²¹ See Summit 2007 Operating Budget, pp. 263-268.

²²² See deposition of Brad Gessner dated December 3, 2018, pp. 178:12-179:11 and 240:1-242:14.

²²³ See deposition of Brad Gessner dated December 3, 2018, p. 179:7-11.

²²⁴ Additionally Mr. Nelsen testified the Prosecutor's Office has not added personnel because it is "restricted in funding because of the general fund restrictions" and there is a "lack of funding for it." (see 30(b)(6) deposition of Brian Nelsen dated January 24, 2019, p. 160:11-19).

HIGHLY CONFIDENTIAL

I examined charges and case data for the Court of Common Pleas to determine if the Prosecutor's Office experienced any incremental costs related to opioids. Total criminal cases declined by 723 cases (or 14.5%) from 2006 to 2016. While charges and case data was not provided in the Court of Common Pleas Annual Reports for 2017 and 2018, the caseloads reported in the Summit County Operating Budgets for the Criminal Division during 2017 and 2018 remained just under 4,000 cases compared to 5,200 cases in 2006.²²⁵ There was an increase in caseloads from 2006 to 2008 due to an initiative to resolve old cases;²²⁶ however, the caseloads reported in the Summit County Operating Budget in 2018 were still less than reported caseloads in 2009 and 2010.²²⁷

Total Juvenile Delinquency & Unruly and Juvenile Dependency/Neglect cases declined by 3,905 and 254 cases (or 61.2% and 19.9%) from 2006 to 2017, respectively. Additionally, the Prosecutor's Office receives reimbursement from Title IV-E funding for time spent on Children Services cases in the Child Protection Unit.²²⁸ Therefore, any costs related to Juvenile Dependency/Neglect cases are reimbursed.

Based on the above and my review of the available information, I determined there were no incremental increases in compensation costs related to prescription opioids or opioids generally.

Other Non-Compensation Costs

Non-compensation costs include "Contract Services," "Local Grant Match," and other non-compensation related accounts, such as supplies, fuel expense, and utilities. Non-compensation costs increased by \$0.3 million between 2006 and 2018 primarily due to an increase in an account titled "Other."²²⁹ Based on the account descriptions and my review of the

²²⁵ See Summit 2008 Operating Budget, p. 287, Summit 2018 Operating Budget, p. 324, and Summit 2019 Operating Budget, p. 283.

²²⁶ See deposition of Brad Gessner dated December 3, 2018, pp. 266:17-267:12.

²²⁷ See Summit 2010 Operating Budget, p. 279 and deposition of Brad Gessner dated December 3, 2018, p. 268:9-21.

²²⁸ See deposition of Brad Gessner dated December 3, 2018, pp. 286:23-287:12.

²²⁹ See SUMMIT_002054603.

HIGHLY CONFIDENTIAL

available information, it does not appear these accounts contain costs related to prescription opioids or opioids generally.

4. Court of Common Pleas

The Summit County Court of Common Pleas (General Division) includes 10 Judges handling civil and criminal cases within Summit County. The Judges preside over felony criminal matters, probation, civil cases, mediation and alternative dispute resolution, foreclosures, and administrative appeals.²³⁰ In addition, there are four specialty courts:²³¹

- Turning Point Program (Felony Drug Court): Voluntary program for qualified, non-violent substance dependent offenders aimed at rehabilitating and helping offenders “transform in to positive, contributing community members.”²³²
- Re-Entry Court: A “collaborative effort between the Court of Common Pleas, Adult Probation Department, and Oriana House”²³³ to provide participants with programming and supervision to “improve their chances of a successful transition to a law-abiding lifestyle.”²³⁴
- Domestic Violence Court: “[P]rovides services for domestic violence offenders and their victims through a combination of Intensive Supervision and victim support.”²³⁵
- Valor Court: This specialized docket provides services to veterans to help address substance abuse and military-related mental illness.²³⁶

The Court of Common Pleas is funded through the Summit County General Fund, Special Revenue Funds, and grants. Special Revenue Funds, such as the Special Projects Fund, Legal Research Fund, and Probation Services Fund, are used by the Court of Common Pleas to

²³⁰ See Summit 2018 Operating Budget, p. 369.

²³¹ See <http://www.summitpcourt.net/Programs/Pages/SpecialCourts.aspx>.

²³² See Court of Common Pleas 2016 Annual Report, pp. 31-32

²³³ See Court of Common Pleas 2016 Annual Report, p. 32.

²³⁴ See Court of Common Pleas 2016 Annual Report, p. 8.

²³⁵ See <http://www.summitpcourt.net/Programs/DVCourt/Pages/DVCourt1.aspx>.

²³⁶ See Court of Common Pleas 2016 Annual Report, p. 31.

HIGHLY CONFIDENTIAL

help support operational expenses.²³⁷ The grants received by the Court of Common Pleas provide supplementary funding for the specialty dockets/courts.^{238,239} My analysis focused on expenses funded through the General Fund.

The information I considered in my analysis of the Court of Common Pleas included, but was not limited to, the following:

- County budgets and CAFRs
- Accounting data from Summit County's Banner accounting system
- Court of Common Pleas annual reports
- Court of Common Pleas grant applications
- Court of Common Pleas charges and cases data
- Headcount data
- Depositions and exhibits of relevant personnel
- Publicly available information

a) Identification of Direct Costs

Based on my review of the available information, I did not identify any direct costs for the Court of Common Pleas, whether related either to prescription opioids or opioids generally. The only opioid specific program for the Court of Common Pleas was associated with the Turning Point Program and was administered by Oriana House. Per Jennifer Hawkins (Program Manager, Oriana House), this opioid specific program was funded through a grant enhancement in 2013 and is no longer an active program.^{240,241} All other programs associated with the Turning Point Program are for all drug court clients and not specific to opioids.

²³⁷ See Summit 2019 Operating Budget, pp. 333-334.

²³⁸ See SUMMIT_002054603.

²³⁹ For example, the Valor Court received funding from SAMHSA for service enhancements including case management and recovery coach services (see deposition of Jennifer Hawkins dated February 28, 2019, pp. 130:13-131:21).

²⁴⁰ Ms. Hawkins testified that there was another opioid specific outpatient treatment program partially funded by a grant, but it was not specific to Turning Point clients, although some clients did participate in this program (see deposition of Jennifer Hawkins dated February 28, 2019, pp. 38:25-40:4, 40:19-41:9, and 42:7-20).

²⁴¹ See deposition of Jennifer Hawkins dated February 28, 2019, pp. 44:7-25, 45:21-46:4, and 150:3-12.

HIGHLY CONFIDENTIAL

b) Identification and Analysis of Incremental Costs

Based on my review of the available information, I identified no incremental costs specifically relating to prescription opioids for the Court of Common Pleas. As stated above, although this case involves claims related to harm caused by prescription opioids, I have also analyzed costs associated with opioid abuse generally in the event that the Court finds damages warranted beyond the harms caused solely by prescription opioid abuse. Thus, regarding opioids generally, I identified total incremental costs of \$467,259 for the Court of Common Pleas. My analysis of incremental costs is presented below.

Table V.D.4-1 is a summary of expenditures and key metrics of the Court of Common Pleas for the period 2006 through 2018.

Table V.D.4-1: Summary of Expenditures and Key Metrics

Court of Common Pleas (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Δ (06-18)	% Δ (06-18)	CAGR (06-18)
Salaries	\$3.3	\$3.3	\$3.4	\$3.8	\$3.5	\$3.5	\$3.4	\$3.7	\$3.9	\$4.0	\$3.9	\$4.0	\$4.1	\$0.8	22.7%	1.7%
Benefits	\$1.1	\$1.1	\$1.1	\$1.3	\$1.3	\$1.3	\$1.2	\$1.3	\$1.4	\$1.5	\$1.6	\$1.6	\$1.5	\$0.5	44.4%	3.1%
Attorney Fees	\$2.7	\$2.5	\$2.5	\$2.3	\$2.4	\$2.2	\$2.4	\$2.3	\$2.8	\$3.1	\$2.7	\$2.8	\$2.7	(\$0.0)	-0.9%	-0.1%
Other Non-Compensation Costs	\$1.1	\$1.0	\$0.9	\$0.9	\$0.4	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.4	(\$0.6)	-60.7%	-7.5%
Total Costs	\$8.1	\$7.9	\$8.0	\$8.4	\$7.6	\$7.5	\$7.5	\$7.9	\$8.5	\$9.0	\$8.6	\$8.8	\$8.7	\$0.6	6.8%	0.5%
Compensation Costs (Salaries + Benefits)	\$4.4	\$4.4	\$4.6	\$5.1	\$4.8	\$4.9	\$4.6	\$5.0	\$5.3	\$5.5	\$5.4	\$5.6	\$5.6	\$1.2	28.0%	2.1%
Compensation Costs as % of Total Costs	53.6%	55.7%	56.9%	60.8%	63.0%	64.9%	61.2%	64.1%	62.0%	60.4%	62.9%	63.1%	64.3%	10.7%		
FTEs	78	78	80	79	85	85	83	83	86	88	83	87		9	11.5%	1.0%
(\$ Actual)																
Average Salaries per FTE	\$42,405	\$42,903	\$42,710	\$48,024	\$40,765	\$41,742	\$40,451	\$45,144	\$45,481	\$45,270	\$46,406	\$46,208		\$3,803	9.0%	0.8%
Average Benefits per FTE	\$13,613	\$13,616	\$14,356	\$16,391	\$15,474	\$15,711	\$14,763	\$15,589	\$15,944	\$16,783	\$18,700	\$17,835		\$4,222	31.0%	2.5%
Average Compensation Costs per FTE	\$56,018	\$56,519	\$57,067	\$64,415	\$56,239	\$57,453	\$55,214	\$60,733	\$61,425	\$62,053	\$65,106	\$64,043		\$8,024	14.3%	1.2%
Criminal Cases Assigned/Arraigned	4,997	4,772	4,583	4,108	3,599	3,692	3,823	3,800	4,219	4,062	4,274			(723)	-14.5%	-1.6%
Total Common Pleas Cases	13,596	13,839	13,449	13,330	12,096	11,001	10,923	9,824	9,848	9,860	9,585			(4,011)	-29.5%	-3.4%

Note 1: Final FTE data was not available for 2018. Case data was not available for 2017-2018.

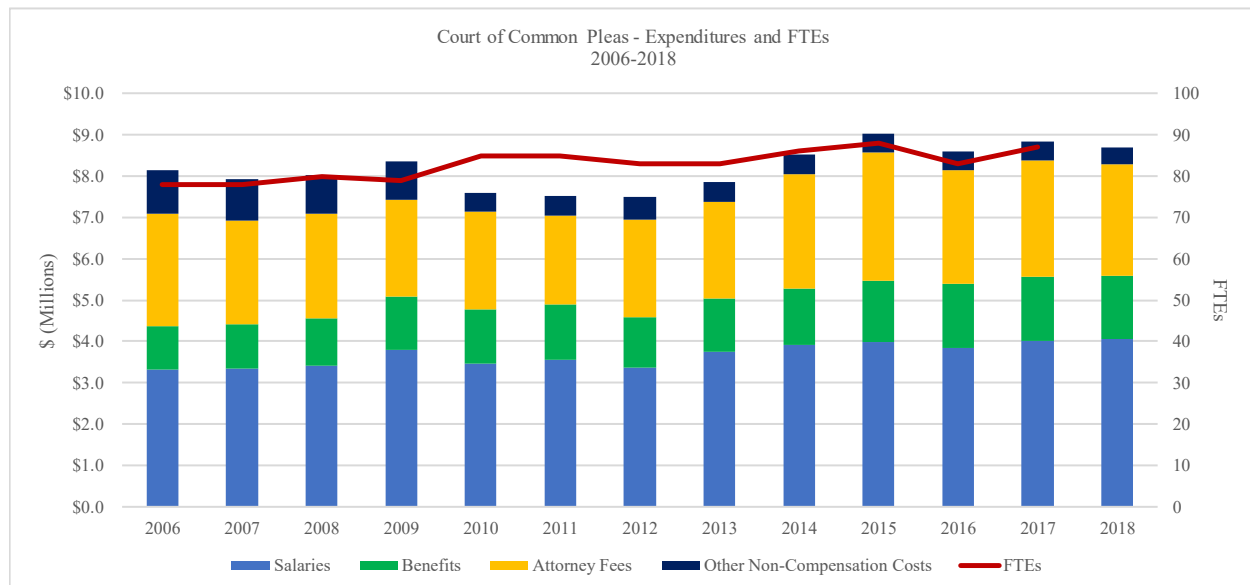
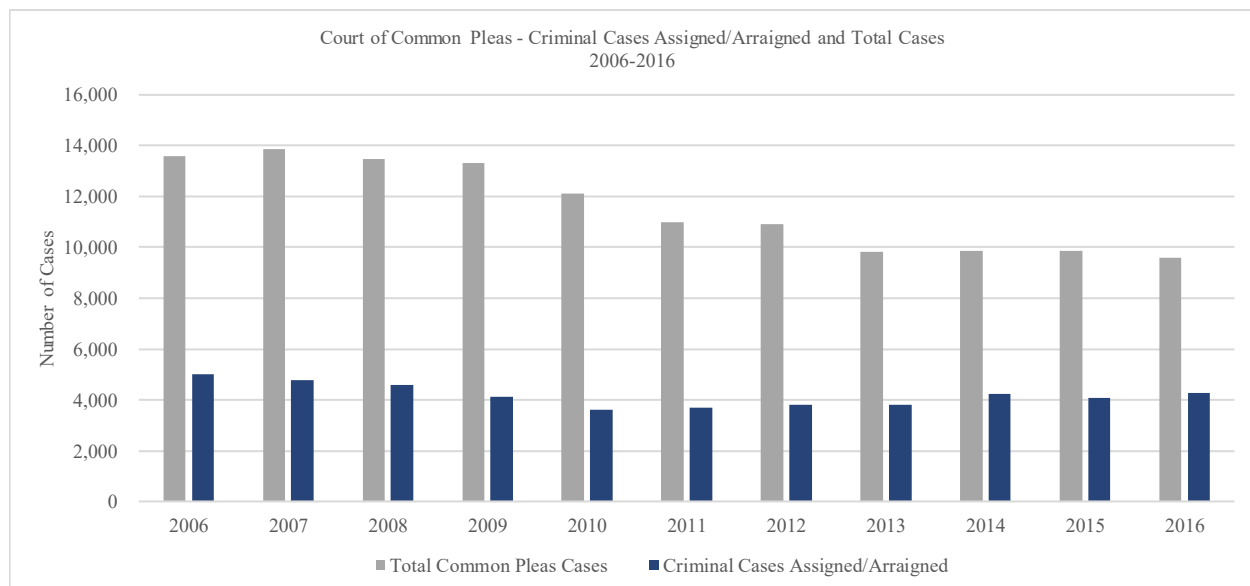
Note 2: Absolute change, percent change, and CAGR metrics for case data are calculated based on the years data was available.

Note 3: Total Common Pleas Cases is the sum of Criminal Cases Assigned/Arraigned and Total Civil Cases Filed in the Court of Common Pleas Annual Reports.

Sources: SUMMIT_002054603; SUMMIT_001952975; Court of Common Pleas 2006-2016 Annual Reports.

These expenditures and key metrics are further exhibited in the graphs below:

HIGHLY CONFIDENTIAL

Graph V.D.4-1: Expenditures and FTEs**Graph V.D.4-2: Cases**

In my review of the expenditures and key metrics of the Court of Common Pleas, I noted the following:

- Total compensation costs (salaries and benefits) fluctuated between 2006 and 2018, but increased overall by \$1.2 million (or 28.0%).

HIGHLY CONFIDENTIAL

- The CAGR of average compensation per FTE was 1.2% from 2006 to 2017, which is below the average inflation rate of state and local government employees' compensation of 2.4%.²⁴²
- Attorney Fees decreased by \$0.03 million (or 0.9%) from 2006 to 2018.
- Total FTEs fluctuated between 2006 and 2017, but increased overall by 9 FTEs (or 11.5%).
- Criminal cases declined by 723 cases (or 14.5%) from 2006 to 2016.²⁴³

Compensation Costs

Total compensation costs increased by \$1.2 million (or 28%) from 2006 to 2018 and represent 61.0% of total expenditures during the period.²⁴⁴ There was a net increase of 9 FTEs from 2006 to 2017. Five of the FTEs were administrative/overhead personnel and four were for non-overhead personnel.²⁴⁵ The increase in non-overhead personnel included two Judges elected for terms beginning in 2009 and two courtroom bailiffs.²⁴⁶ I did not identify any information which suggested the hiring of either Judge was related to the increase in drug cases, let alone prescription opioid or other opioid cases.²⁴⁷ In fact, criminal cases declined over the considered

²⁴² See U.S. Bureau of Labor Statistics, Employment Cost Index (NAICS basis), 2007-2018 – Series I.D. CIU301000000000Q (Not Seasonally Adjusted).

²⁴³ New Criminal Cases Filed also declined by 10.7% from 2006 to 2018 (see Court of Common Pleas 2006 and 2016 Annual Reports).

²⁴⁴ See SUMMIT_002054603.

²⁴⁵ There was a change in the position title for 11 employees in 2014 from “Secretary II” to “Criminal Support Specialist,” but the specific employees remained the same (see SUMMIT_001952975, Court of Common Pleas 2006-2016 Annual Reports, “Organization Personnel Roster” section).

²⁴⁶ See SUMMIT_001952975; Court of Common Pleas 2009 Annual Report, pp. 6 and 9, and Summit 2010 Operating Budget, p. 312.

²⁴⁷ The two judges elected to the Summit County Court of Common Pleas for terms beginning in 2009 were Judge Lynne Callahan and Judge Allison McCarty who both work with domestic violence victims and participate in the Re-Entry Court Program (see Court of Common Pleas 2009 Annual Report, pp. 6 and 9).

HIGHLY CONFIDENTIAL

period. Therefore, based on my review of the available information, I determined there were no incremental increases in compensation costs related to prescription opioids or opioids generally.

Attorney Fees

Attorney Fees decreased by \$0.03 million (or 0.9%) from 2006 to 2018 and represent 31.4% of total expenditures during the period. This cost includes fees for attorneys who represent indigent defendants and fees for expert witnesses.²⁴⁸ As mentioned, Attorney Fees decreased slightly from 2006 to 2018; however, Brian Nelsen (Director of Budget and Finance, Summit County) testified that an increase in indigent defense spending was one of the first indications of the opioid problem in Summit County.²⁴⁹ Table V.D.4-2 is detail of attorney fees by felony type for 2006 through 2018 (as available).

Table V.D.4-2: Attorney Fees by Felony Type

Attorney Fees	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
F1							\$504,842	\$385,563	\$516,300	\$825,387	\$509,394	\$438,383	
F2							\$339,479	\$307,642	\$348,569	\$323,759	\$272,038	\$278,934	
F3							\$354,942	\$350,869	\$382,436	\$377,559	\$385,907	\$404,124	
F4							\$260,727	\$276,156	\$263,155	\$274,073	\$296,147	\$310,086	
F5							\$644,189	\$648,102	\$764,517	\$847,177	\$875,960	\$939,582	
Expert Fees							\$96,577	\$117,692	\$236,688	\$216,347	\$148,799	\$177,294	
Other							\$242,510	\$247,535	\$259,093	\$251,120	\$252,142	\$255,676	
Total	\$2,712,602	\$2,511,704	\$2,522,543	\$2,346,687	\$2,361,874	\$2,164,135	\$2,443,265	\$2,333,559	\$2,770,758	\$3,115,421	\$2,740,387	\$2,804,080	\$2,687,094

Note 1: Summit County began to track attorney fees by type in 2012 (*see* deposition of Brian Nelsen dated December 19, 2018, pp. 73:6-24 and 231:14-24).

Note 2: The 2012 and 2013 totals from Exhibit 7 to Brian Nelsen's deposition dated December 19, 2018 do not match the totals in the Banner Accounting System (SUMMIT_002054603).

Sources: SUMMIT_002054603; deposition of Brian Nelsen dated December 19, 2018, Exhibit 7.

As depicted above, total attorney fees declined from 2006 to 2009, remained relatively flat between 2009 and 2013, and increased beginning in 2014. While the Summit County 2015 Operating Budget indicated that payments to indigent defense counsel began to increase "greater than the corresponding increase in the caseload,"²⁵⁰ Mr. Nelsen testified that the spending related to the Felony 5 ("F5") offenders "is primarily opiate related."²⁵¹ F5 offenders are those

²⁴⁸ See deposition of Brian Nelsen dated December 19, 2018, pp. 227:25-229:8, Exhibit 6, and Exhibit 7.

²⁴⁹ See deposition of Brian Nelsen dated December 19, 2018, pp. 231:8-24 and 30(b)(6) deposition of Brian Nelsen dated January 24, 2019, pp. 196:16-22, and 197:25-198:13.

²⁵⁰ See Summit 2015 Operating Budget, p. 323.

²⁵¹ See deposition of Brian Nelsen dated December 19, 2018, Exhibit 6.

HIGHLY CONFIDENTIAL

sentenced for less than one year and primarily include low-level drug offenses.^{252,253} Therefore, I further examined the F5 Attorney Fees.

Mr. Nelsen's testimony is not supported by contemporaneous accounting, financial, or other records. However, in an effort to be conservative, I calculated the incremental increase in F5 attorney fees assuming the increase could be related to opioids. Table V.D.4-3 is my calculation of incremental Attorney Fees for the Court of Common Pleas.

Table V.D.4-3: Incremental Attorney Fees

Incremental Costs	Avg. \$ (2012-2013)	2014	2015	2016	2017	Total (2014-2017)
F5 Indigent Defense Spending	\$646,146	\$764,517	\$847,177	\$875,960	\$939,582	\$3,427,237
Incremental Costs		\$118,372	\$201,032	\$229,815	\$293,437	\$842,655
% County Funded		60.0%	54.7%	52.7%	56.3%	
County-Funded Incremental Cost		\$71,023	\$109,897	\$121,036	\$165,303	\$467,259

Sources: SUMMIT_002054603; deposition of Brian Nelsen dated December 19, 2018, Exhibit 7; State of Ohio Public Defender - Reimbursement History for Purposes of Calculating Recoupment (<https://opd.ohio.gov/Portals/0/PDF/Reimbursement/Reimbursement-Percent-History.pdf?ver=2019-02-21-093626-180>).

My calculation of incremental costs is based on a baseline period of 2012 through 2013, as 2012 is the earliest year attorney fees by felony type is available, and fees did not increase until 2014. Each yearly incremental increase was then multiplied by a factor representing the percentage of those expenses funded by county revenues. This adjustment is necessary as I understand that the State of Ohio Public Defender reimburses counties for indigent defense spending.²⁵⁴ In total, I calculated \$467,259 in incremental Attorney Fees for the Court of Common Pleas. My calculation is conservative considering not all attorney fees for F5 offenders related to opioids.

²⁵² See <http://codes.ohio.gov/orc/2929.14>.

²⁵³ See deposition of Brian Nelsen 30(b)(6) dated January 24, 2019, pp. 162:5-163:12 and deposition of Gertrude Wilms, pp. 90:14-93:7.

²⁵⁴ See Summit 2018 Operating Budget, p. 381 and <https://opd.ohio.gov/Reimbursement/Reimbursement#105161-application-fee--recoupment>.

HIGHLY CONFIDENTIAL

Other Non-Compensation Costs

Non-compensation costs include “Contract Services,” “Transcripts,” and other non-compensation related accounts, such as telephone and office service charges. Non-compensation costs decreased by \$0.6 million (or 60.7%) between 2006 and 2018. Based on the account descriptions and my review of the available information, it does not appear these accounts contain costs related to prescription opioids or opioids generally.

5. Juvenile Court

The Summit County Juvenile Court administers juvenile justice while also providing outreach, early intervention, community education, and other programs.²⁵⁵ The Juvenile Court is comprised of three primary divisions:

- General Office: Develops programming for youth that come before the court and monitors the court’s detention and placement population. The Judge and Magistrates, with accompanying administrative personnel, are housed within this division.^{256, 257}
- Intake/Probation: Gathers pertinent information regarding the youth’s background, family, demographics, and any other information that can be used in determining recommendations for disposition.^{258,259}
- Detention Center: Consists of “seven main housing units plus two annex units” with the capacity to house 100 youth.²⁶⁰

All three of these divisions are funded, in part, by revenues from the Summit County General Fund, which represents county levy funds received by the Juvenile Court. The Juvenile Court also receives many external grants that provide funding for programs such as the Behavioral Health and Juvenile Justice Program, Jobs Re-Entry Program, the Family

²⁵⁵ See Summit 2018 Operating Budget, p. 403.

²⁵⁶ See Summit 2018 Operating Budget, p. 404.

²⁵⁷ The Summit County Operating Budget refers to this division as “Judicial/Admin.”

²⁵⁸ See Juvenile Court 2017 Annual Report, Intake Department.

²⁵⁹ The Summit County Operating Budget refers to this division as “Intake.”

²⁶⁰ See Juvenile Court 2017 Annual Report, Detention Center.

HIGHLY CONFIDENTIAL

Reunification through Recovery Court, and more.²⁶¹ My analysis focused on expenses funded through the General Fund which is separately accounted for within the Banner accounting system.²⁶²

The information I considered in my analysis of the Juvenile Court included, but was not limited to, the following:

- County budgets and CAFRs
- Accounting data from Summit County's Banner accounting system
- Juvenile Court annual reports
- Headcount data
- Depositions and exhibits of relevant personnel
- Publicly available information

a) Identification of Direct Costs

Based on my review of the available information, I did not identify any direct costs for the Juvenile Court, whether related either to prescription opioids or opioids generally.

b) Identification and Analysis of Incremental Costs

Based on my review of the available information, I identified no incremental costs specifically relating to prescription opioids for the Juvenile Court. As stated above, although this case involves claims related to harm caused by prescription opioids, I have also analyzed costs associated with opioid abuse generally in the event that the Court finds damages warranted beyond the harms caused solely by prescription opioid abuse. Thus, regarding opioids generally, I identified total incremental costs of \$1,388,319 for the Juvenile Court. My analysis of incremental costs is presented below.

Table V.D.5-1 is a summary of expenditures and key metrics of the Juvenile Court for the period 2006 through 2018.

²⁶¹ See Juvenile Court 2017 Annual Report, 2017 Additional Funding.

²⁶² See SUMMIT_002054603.

HIGHLY CONFIDENTIAL

Table V.D.5-1: Summary of Expenditures and Key Metrics

Juvenile Court (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Δ (06-18)	% Δ (06-18)	CAGR (06-18)
Salaries (Excludes Overtime)	\$5.2	\$5.3	\$5.2	\$5.0	\$4.3	\$4.3	\$4.1	\$4.1	\$4.1	\$4.1	\$4.1	\$4.3	\$4.4	(\$0.8)	-14.8%	-1.3%
Overtime	\$0.2	\$0.2	\$0.2	\$0.1	\$0.2	\$0.2	\$0.3	\$0.2	\$0.3	\$0.4	\$0.4	\$0.4	\$0.5	\$0.3	210.8%	9.9%
Benefits	\$1.7	\$1.8	\$2.0	\$2.0	\$1.7	\$1.7	\$1.6	\$1.7	\$1.7	\$1.8	\$1.8	\$1.8	\$1.8	\$0.1	3.8%	0.3%
Attorney Fees	\$0.9	\$0.9	\$1.3	\$0.9	\$0.8	\$0.8	\$0.9	\$1.1	\$1.2	\$1.2	\$1.4	\$1.5	\$1.6	\$0.7	75.5%	4.8%
Other Non-Compensation Costs	\$1.1	\$1.2	\$1.2	\$1.1	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.2	\$1.3	\$1.2	\$1.1	(\$0.0)	-1.7%	-0.1%
Total Costs	\$9.1	\$9.4	\$9.9	\$9.1	\$8.3	\$8.4	\$8.2	\$8.4	\$8.6	\$8.8	\$8.9	\$9.2	\$9.4	\$0.3	3.2%	0.3%
Compensation Costs (Salaries + Overtime + Benefits)	\$7.0	\$7.3	\$7.4	\$7.0	\$6.1	\$6.3	\$5.9	\$6.1	\$6.1	\$6.3	\$6.3	\$6.4	\$6.7	(\$0.4)	-5.3%	-0.5%
Compensation Costs as % of Total Costs	77.5%	77.7%	75.0%	77.6%	73.9%	75.0%	72.2%	72.4%	70.9%	72.1%	70.3%	70.1%	71.1%	-6.4%		
FTEs (\$ Actual)	132	134	132	131	100	99	96	100	97	93	89	86	85	(47)	-35.9%	-3.6%
Average Salaries + Overtime per FTE	\$40,169	\$41,274	\$41,107	\$38,908	\$44,014	\$45,645	\$45,388	\$43,935	\$45,237	\$49,457	\$50,770	\$54,242	\$57,488	\$17,319	43.1%	3.0%
Average Benefits per FTE	\$12,983	\$13,448	\$15,040	\$14,904	\$17,098	\$17,606	\$16,255	\$16,783	\$17,635	\$19,037	\$19,619	\$21,015	\$21,023	\$8,040	61.9%	4.1%
Average Compensation Costs per FTE	\$53,152	\$54,721	\$56,147	\$53,812	\$61,111	\$63,251	\$61,643	\$60,719	\$62,873	\$68,494	\$70,390	\$75,258	\$78,511	\$25,359	47.7%	3.3%
Total Juvenile Cases	12,718	11,835	10,377	9,803	8,516	7,444	7,343	6,914	6,565	6,964	7,137	6,670		(6,048)	-47.6%	-5.7%
Dependency/Abuse/Neglect	1,276	1,207	1,025	980	915	858	805	832	843	915	1,062	1,022		(254)	-19.9%	-2.0%
Delinquency & Unruly	6,381	6,067	5,595	4,973	4,150	3,527	3,465	2,965	2,850	2,953	2,944	2,476		(3,905)	-61.2%	-8.2%

Note 1: FTEs represents budgeted FTEs for 2006-2018.

Note 2: Juvenile case data was not available for 2018.

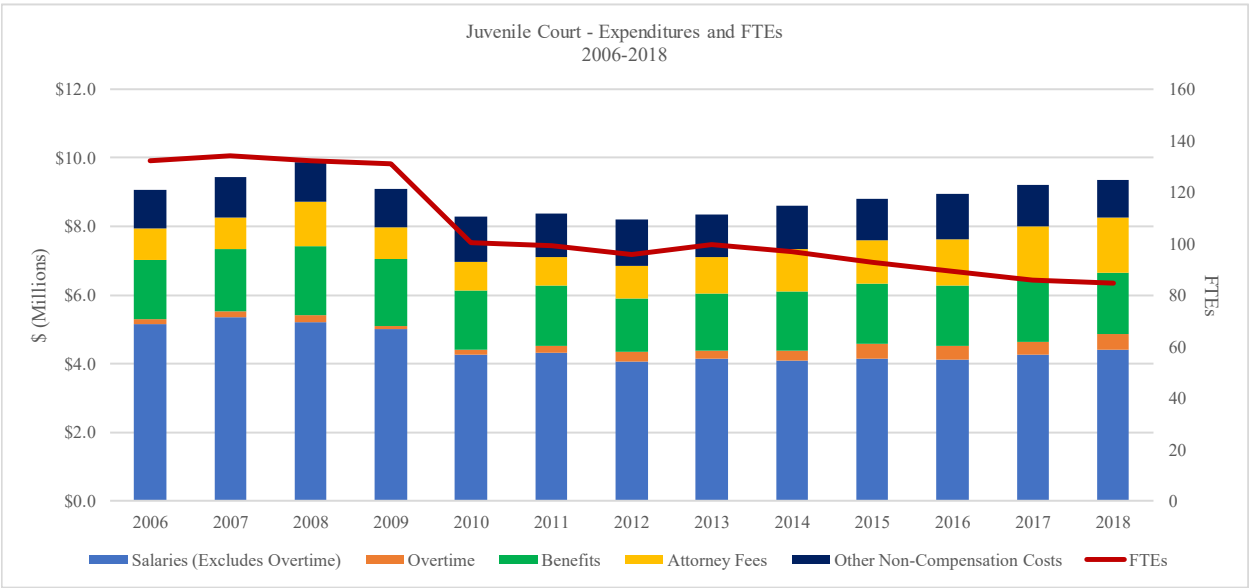
Note 3: Absolute change, percent change, and CAGR metrics for juvenile case data are calculated based on the years data was available.

Sources: SUMMIT_002054603; Juvenile Court 2016-2017 Annual Reports; Summit 2010, 2014, and 2018 Operating Budget.

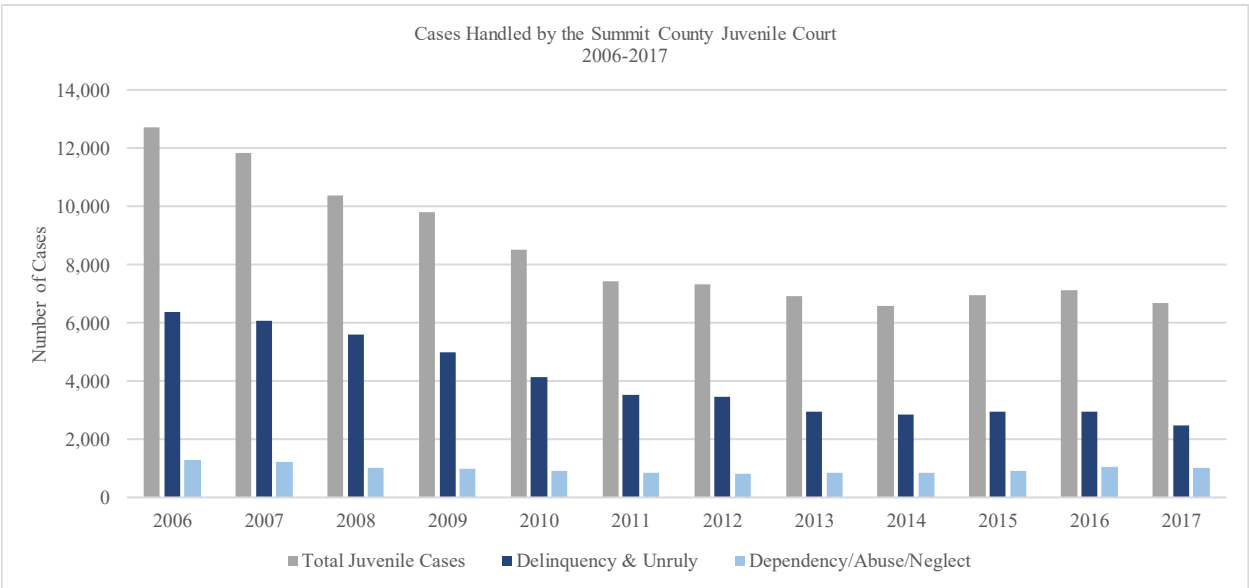
These expenditures and key metrics are further exhibited in the graphs below:

HIGHLY CONFIDENTIAL

Graph V.D.5-1: Expenditures and Budgeted FTEs



Graph V.D.5-2: Cases



Note: Criminal (adult) cases are hidden in the 2017 Annual Report, but are included in the underlying totals.

In my review of the expenditures and key metrics of the Juvenile Court, I noted the following:

HIGHLY CONFIDENTIAL

- Total compensation costs (salaries and benefits) fluctuated between 2006 and 2018, but decreased overall by \$0.4 million (or 5.3%).
- The CAGR of average compensation per FTE was 3.3%, which is above the average inflation rate of state and local government employees' compensation of 2.4%.²⁶³
- Attorney Fees increased by \$0.7 million (or 75.5%) from 2006 to 2018.
- There was a net decrease of 47 budgeted FTEs (or 35.9%) between 2006 and 2018.
- Total juvenile cases declined by 47.6% from 2006 to 2017. This reduction is due, in part, to efforts by the Juvenile Court to “investigat[e] methods to reach our youth either before they become Court-involved, or trace their behavior in hopes of discovering what impulses drove them toward the activity that brought them here.”^{264,265}

The Juvenile Court also reports yearly statistics regarding the number and types of cases handled. Of the types of cases reported, I identified two which may potentially be related to opioids.²⁶⁶

- Delinquency and unruly: Cases involve any minor who violates the law, as well as minors who “do not subject themselves to the reasonable control” of authority.²⁶⁷ The Juvenile Court Annual Reports provide statistics for felony and misdemeanor charges (which are assumed to fall under the Delinquency and Unruly case type), some of which are related to drug crimes.²⁶⁸

²⁶³ See U.S. Bureau of Labor Statistics, Employment Cost Index (NAICS basis), 2007-2018 – Series I.D. CIU301000000000Q (Not Seasonally Adjusted).

²⁶⁴ See Juvenile Court 2010 Annual Report, p .2.

²⁶⁵ Mr. Nelsen also testified that the Juvenile Court Judge “has a strong belief in alternative programming, so they tend not to hold very many kids in detention.” See 30(b)(6) deposition of Brian Nelsen dated January 24, 2019, p. 165:21-25.

²⁶⁶ Cutler also identified delinquency and unruly and dependency, abuse, and neglect as being “opioid-related” (see Cutler Report at Appendix III.F.2).

²⁶⁷ See <https://juvenilecourt.summitoh.net/index.php/information/faq-definitions/frequently-asked-questions>.

²⁶⁸ Drug crimes include “Possession of Drugs” and “Trafficking in Drugs” (see Juvenile Court 2015 Annual Report, Case Type by Gender and Juvenile Court 2016 Annual Report, Yearly Statistical Analysis of Charges).

HIGHLY CONFIDENTIAL

- Dependency, abuse, and neglect: Cases originate from Children Services investigations, where the court plays a role in ensuring the child has a “safe and permanent home.”²⁶⁹

As depicted in the Graph V.D.5-2 above, delinquency and unruly cases decreased between 2006 and 2014, remained relatively flat between 2014 and 2016, and then decreased again in 2017. The Juvenile Court provides a breakout of charge types for misdemeanors and felonies from 2014 through 2016 and drug related charges constitute a very small percentage of overall charges. As such, there are no incremental increases in the number of the delinquency and unruly cases due to prescription or general opioid abuse.

Dependency, abuse, and neglect cases decreased overall between 2006 and 2014 and then increased between 2014 and 2017, although not back to the 2006 level. The Plaintiffs did not produce any information which would allow me to determine if these cases related to opioid abuse. However, since these cases are related to activity in Children Services (which began reporting slight increases in custody due to the “opiate epidemic” in 2014),²⁷⁰ I further analyzed whether the increase in dependency, abuse, and neglect cases affected compensation or other costs in the Juvenile Court.

Compensation Costs

Total compensation costs decreased by \$0.4 million (or 5.3%) from 2006 to 2018 and represent 73.6% of total expenditures during the period.²⁷¹ There was a net decrease of 47 FTEs from 2006 to 2018. Therefore, any incremental increase in the number of dependency, abuse, and neglect cases seen by the Juvenile Court that might have been related to prescription or other opioids did not result in additional hires.²⁷²

Although total compensation costs (salaries and benefits) decreased between 2006 and 2018, overtime increased starting in 2014. While Plaintiffs have not produced any pay records,

²⁶⁹ See <https://juvenilecourt.summitoh.net/index.php/information/faq-definitions/frequently-asked-questions>.

²⁷⁰ See Children Services October 2014 Board Meeting Minutes (SUMMIT_002058485 at 00205820).

²⁷¹ See SUMMIT_002054603.

²⁷² See deposition of Brian Nelsen dated January 24, 2019, p. 166:11-24.

HIGHLY CONFIDENTIAL

overtime data, or case files that would allow me to perform any further analysis, I calculated the incremental increase in overtime costs assuming these costs could be related to the slight increase in dependency, abuse, and neglect cases from 2014 to 2017, which in turn could have been related to opioids (see Table V.D.5-2 below).

Attorney Fees

Attorney Fees increased by \$0.7 million (or 75.5%) from 2006 to 2018 and represent 12.7% of total expenditures during the period.²⁷³ Based on testimony of Mr. Nelsen, these amounts relate to indigent defense fees paid by the Juvenile Court and increased as a result of the opioid epidemic.²⁷⁴ However, Mr. Nelsen acknowledged indigent defense fees are not tracked by case type and could relate to any of the cases seen by the Juvenile Court.²⁷⁵ Additionally, Mr. Nelsen's testimony is not supported by contemporaneous accounting, financial, or other records. However, in an effort to be conservative, I calculated the incremental increase in Attorney Fees assuming these fees could also be related to the slight increase in dependency, abuse, and neglect cases from 2014 to 2017, which in turn could have been related to opioids.

Table V.D.5-2 is my calculation of incremental Attorney Fees and overtime Costs for the Juvenile Court.

²⁷³ See SUMMIT_002054603.

²⁷⁴ See deposition of Brian Nelsen dated January 24, 2019, p. 166:1-4.

²⁷⁵ See deposition of Brian Nelsen dated December 19, 2018, pp. 70:9-72:14.

HIGHLY CONFIDENTIAL

Table V.D.5-2: Incremental Attorney Fees and Overtime Costs

Incremental Costs	Avg. \$ (2012-2014)	2015	2016	2017	2018	Total (2015-2018)
Account: Attorney Fees	\$1,078,815	\$1,248,021	\$1,352,011	\$1,544,202	\$1,600,034	\$5,744,269
Incremental Costs - Attorney Fees		169,206	273,196	465,387	521,219	1,429,009
% County Funded		54.7%	52.7%	56.3%	56.9%	
County-Funded Incremental Costs - Attorney Fees		\$92,499	\$143,883	\$262,168	\$296,621	\$795,172
Account: Overtime	\$278,612	\$432,470	\$402,432	\$395,212	\$477,482	\$1,707,596
Incremental Costs - Overtime		153,857	123,820	116,600	198,870	593,147
% County Funded		100.0%	100.0%	100.0%	100.0%	
County-Funded Incremental Costs - Overtime		\$153,857	\$123,820	\$116,600	\$198,870	\$593,147
Total Incremental Costs		\$246,357	\$267,703	\$378,768	\$495,491	\$1,388,319

Sources: SUMMIT_002054603; State of Ohio Public Defender - Reimbursement History for Purposes of Calculating Recoupment (<https://opd.ohio.gov/Portals/0/PDF/Reimbursement/Reimbursement-Percent-History.pdf?ver=2019-02-21-093626-180>).

My calculation of incremental costs is based on a baseline period of 2012 through 2014 since dependency, abuse, and neglect cases heard in the Juvenile Court originate from Children Services and beginning in 2014, the Children Services' Board Meeting Minutes mentioned slight increases in custody due to the "opiate epidemic."²⁷⁶ Each yearly incremental increase was then multiplied by a factor representing the percentage of those expenses funded by county revenues. This adjustment is necessary as I understand that the State of Ohio Public Defender reimburses counties for indigent defense spending.²⁷⁷ In total, I calculated \$1,388,319 in incremental Attorney Fees and overtime costs for the Juvenile Court. My calculation is conservative considering not all dependency, abuse, and neglect cases related to parental opioid abuse.

Other Non-Compensation Costs

Non-compensation costs include "Contract Services," "Medical Fees," and other non-compensation related accounts, such as supplies, telephone, and office service charges. Non-compensation costs remained flat between 2006 and 2018. Based on the account descriptions

²⁷⁶ See Children Services October 2014 Board Meeting Minutes (SUMMIT_002058485 at 00205820).

²⁷⁷ See Summit 2018 Operating Budget, p.381 and <https://opd.ohio.gov/Reimbursement/Reimbursement#105161-application-fee--recoupment>. Reimbursement for the Juvenile Court (while not explicitly stated in the Juvenile Court budget discussion) was confirmed through review of General Fund revenue accounts: "Defense of Indigent" and "Juvenile Atty Fee Reimbursement" in the Summit County Banner accounting system (see SUMMIT_002054603).

HIGHLY CONFIDENTIAL

and my review of the available information, it does not appear these accounts contain costs related to prescription opioids or opioids generally.

6. Sheriff's Office – Operations Division

The Summit County Sheriff's Office is comprised of two main divisions: (1) Operations Division and (2) Corrections Division. The Sheriff's Office is also responsible for Special Events such as community events and Sheriff's awards. This section of my report addresses the Operations Division. The next section of my report addresses the Corrections Division (i.e., County Jail).

The Operations Division is funded through the Summit County General Fund, grants, and Special Revenue Funds. The grants received by the Operations Division provide funding for programs such as the Drug Unit, D.A.R.E. (Drug Abuse Resistance Education), and the OVI Task Force (Operating a Vehicle Impaired).²⁷⁸ Special Revenue Funds represent payments received for contracted services provided to local cities and townships, fees generated from services such as foreclosure services, and fees for a variety of training programs.²⁷⁹ For example, the Patrol Bureau, which is responsible for patrolling and responding to calls for service is an example of services reimbursed by Special Revenue Funds. This activity is funded by The Police Rotary fund, which is a Special Revenue Fund based on the contract services provided to and reimbursed by townships in the county.²⁸⁰ Accordingly, I have not included activities supported by this fund in my analysis.

My analysis focused on expenses funded through the General Fund which is separately accounted for within the Banner accounting system.²⁸¹ Based on my review of the Summit County budgets and accounting data, I determined the services funded by the General Fund

²⁷⁸ See Sheriff's Office 2017 Annual Report, p. 13.

²⁷⁹ See Sheriff's Office 2017 Annual Report, p. 13.

²⁸⁰ See Summit 2019 Operating Budget, p. 10.

²⁸¹ See SUMMIT_002054603.

HIGHLY CONFIDENTIAL

primarily consist of administrative personnel²⁸² and the Court Services Bureau.²⁸³ The Court Services Bureau consists of deputies who serve judges in the Court of Common Pleas and are “primarily responsible to transport prisoners to and from the jail and other specified facilities.”²⁸⁴

The information I considered in my analysis of the Operations Division included, but was not limited to, the following:

- County budgets and CAFRs
- Accounting data from Summit County’s Banner accounting system
- Sheriff’s Office annual reports
- Drug Unit annual reports
- Sheriff’s Office grant applications
- Arrest and drug seizure data
- Headcount data
- Depositions and exhibits of relevant personnel
- Publicly available information

a) Identification of Direct Costs

Based on my review of the available information, I identified total direct costs of \$166,667 related to prescription opioids for the Operations Division.²⁸⁵ As stated above, although this case involves claims related to harm caused by prescription opioids, I have also analyzed costs associated with opioid abuse generally in the event that the Court finds damages warranted beyond the harms caused solely by prescription opioid abuse. Thus, regarding opioids generally, I identified total direct costs of \$281,034 for the Operations Division.^{286,287} These

²⁸² The Fiscal and Personnel Bureaus are part of the Sheriff-General Office. See Summit 2018 Operating Budget, pp 268-320.

²⁸³ It is possible that a small number of deputies assigned to the Investigative Bureau are included in the General Office, but the budgets nor annual reports are clear to the division of labor.

²⁸⁴ See Summit 2018 Operating Budget, p. 270.

²⁸⁵ See Appendix 5 – Summit County Direct Costs.

²⁸⁶ See Appendix 5 – Summit County Direct Costs.

²⁸⁷ Therefore, my total direct costs related to prescription and general opioids for the Operations Division is \$447,701.

HIGHLY CONFIDENTIAL

direct costs for prescription and general opioids related to cash matches for Summit County Drug Unit grants for the years 2013 to 2018. As of 2018, the Summit County Drug Unit receives two grants,²⁸⁸ the Edward Byrne Memorial Justice Assistant Grant (“JAG”) and the Ohio Drug Law Enforcement (“DLEF”) Grant. JAG helps fund the portion of the Drug Unit Commander’s salary which is not covered by the Ohio DLEF grant.²⁸⁹ The Ohio DLEF grant is used to “maintain rent of the task force’s current or future facilities” as well as pay for salaries and benefits,²⁹⁰ overhead expenses, contract services, for fuel and maintenance costs of vehicles, and for travel and training of the Drug Unit’s investigators.²⁹¹

The Ohio DLEF grant was enacted in 2008,²⁹² but detailed grant applications prior to award year 2013 were not provided to me. The first project objective for the 2013 grant stated,²⁹³

The proliferation of pain management clinics and access to home medicine cabinets has increased availability and diversion of dangerous narcotics into our community. Our state has become a focal point for a national epidemic of prescription drug abuse, especially addictive pain medications such as oxycodone and hydrocodone. The task force will target and indict individuals and or organizations associated with the illegal sale of prescription medications in Summit County.

The grant application for award year 2014 had similar project objectives; however, beginning in June 2015, the focus changed to respond to heroin, and prescription opioids was no

²⁸⁸ The Summit County Drug Unit is also funded through HIDTA, which assists with funding of overtime, equipment, training, intelligence analysis, and event de-confliction (see Sheriff’s Office 2017 Annual Report, p. 34 and Dept. of Public Safety 1748 (at 1793), Dept. of Public Safety 1863 (at 1889), Dept. of Public Safety 1956 (at 2049)).

²⁸⁹ See Dept. of Public Safety 1748 (at 1793), Dept. of Public Safety 1863 (at 1889), Dept. of Public Safety 1956 (at 2049), Dept. of Public Safety 2623 (at 2685), and deposition of Matthew Paolino dated December 5, 2018, pp. 42:10-43:1 and 154:3-22.

²⁹⁰ The grant pays for the remainder of the commander’s salary not covered by JAG as well as the salary of the administrative assistant and the deputy/property officer (see the production related to the Department of Public Safety Response to Subpoena, January 3, 2019, p. 2711 and deposition of Matthew Paolino dated December 5, 2018, pp. 42:16-43:1, 154:9-22).

²⁹¹ See Dept. of Public Safety 1748 (at 1781).

²⁹² See Drug Unit 2009 Annual Report, p.2.

²⁹³ See Dept. of Public Safety 1748 (at 1777).

HIGHLY CONFIDENTIAL

longer a project objective.²⁹⁴ In later years, heroin was not listed specifically as a project objective but was still considered one of the main threats to the county, along with fentanyl.²⁹⁵ Therefore, \$166,667 of these identified direct costs are specific to prescription opioids, and \$281,034 are regarding opioids generally.²⁹⁶

I have not identified any other direct costs related to prescription or general opioids. While I am aware of Sheriff's Office initiatives, such as the Quick Response Teams and the DUMP (Dispose of Unwanted Medications Properly) Program,²⁹⁷ Plaintiffs have not produced any information or data that would enable me to quantify any additional costs incurred, such as overtime costs or personnel hires for these programs. I also identified documents that indicate such program costs are paid for by grants or other agencies and would not be a cost borne by the county.^{298,299}

b) Identification and Analysis of Incremental Costs

Based on my review of the available information, I did not identify any incremental costs for the Operations Division between 2006 and 2018, whether related either to prescription opioids or opioids generally. My analysis of incremental costs is presented below.

Table V.D.6-1 is a summary of expenditures and key metrics of the Operations Division for the period 2006 through 2018.

²⁹⁴ See SUMMIT_000017769.

²⁹⁵ Dept. of Public Safety 2436 (at 2487) and Dept. of Public Safety 2623 (at 2670), and Drug Unit 2013 Annual Report, p. 6.

²⁹⁶ See Appendix 5 – Summit County Direct Costs.

²⁹⁷ The Summit County Sheriff's Office has partnered with the QRT Program since its inception and provides deputy staff for teams in patrol districts of Coventry Township and the City of Green. The City of Green refers to their QRT as the GO team (Green Outreach) (see Sheriff's Office 2017 Annual Report, p. 22).

²⁹⁸ The DEA runs the large collection days for the DUMP program and helps pay for the boxes and disposal. There are boxes located around the county that the ADM Board pays for and the drug unit will help collect and dispose of some of the local boxes (see deposition of Matthew Paolino dated December 5, 2018, pp. 136:13-140:3).

²⁹⁹ The Ohio Drug Law Enforcement grant states that the Summit County Drug Unit joined in collaboration with the Federal Bureau of Investigation to dedicate two detectives for immediate response to accidental overdose deaths. Additionally, "the Federal Bureau of Investigation has applied for additional funding to cover expenses relating to the overdose investigations" (see the production related to the Department of Public Safety Response to Subpoena, January 3, 2019, pp. 2489 and 2672).

HIGHLY CONFIDENTIAL

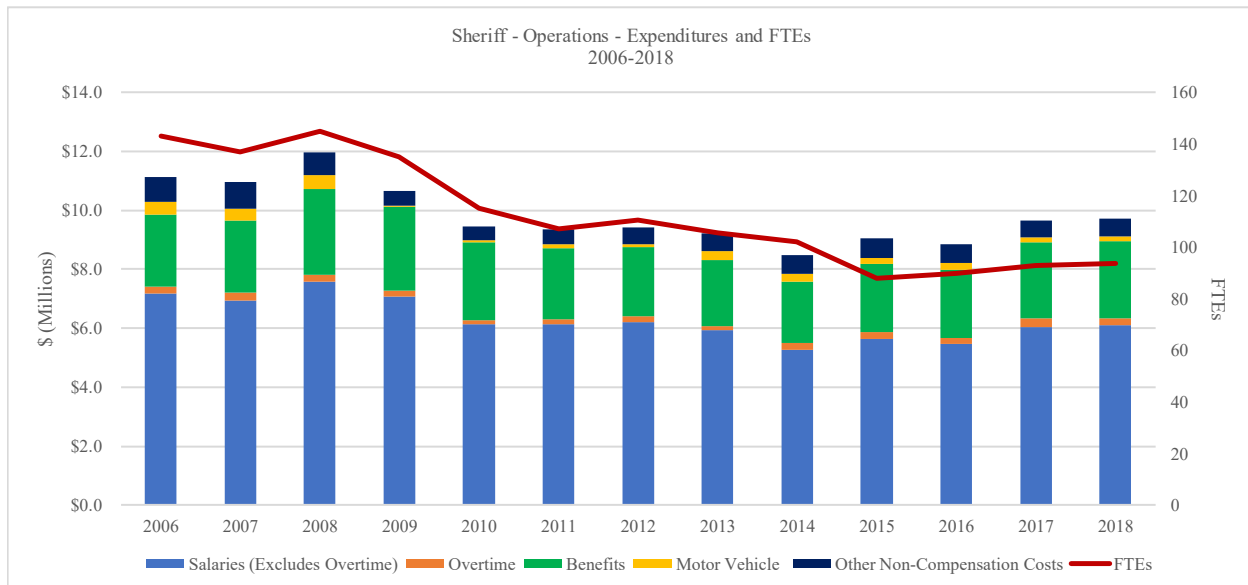
Table V.D.6-1: Summary of Expenditures and Key Metrics

Sheriff - Operations (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Δ (06-18)	% Δ (06-18)	CAGR (06-18)
Salaries (Excludes Overtime)	\$7.2	\$6.9	\$7.6	\$7.1	\$6.1	\$6.2	\$6.2	\$5.9	\$5.3	\$5.6	\$5.5	\$6.0	\$6.1	(\$1.0)	-14.6%	-1.3%
Overtime	\$0.2	\$0.3	\$0.2	\$0.2	\$0.1	\$0.1	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.3	\$0.2	(\$0.0)	-1.9%	-0.2%
Benefits	\$2.5	\$2.5	\$2.9	\$2.9	\$2.6	\$2.4	\$2.3	\$2.2	\$2.1	\$2.3	\$2.3	\$2.6	\$2.6	\$0.1	5.5%	0.4%
Motor Vehicle	\$0.4	\$0.4	\$0.5	\$0.0	\$0.1	\$0.1	\$0.1	\$0.3	\$0.3	\$0.2	\$0.2	\$0.2	\$0.2	(\$0.2)	-56.1%	-6.6%
Other Non-Compensation Costs	\$0.8	\$0.9	\$0.8	\$0.5	\$0.5	\$0.5	\$0.6	\$0.6	\$0.6	\$0.7	\$0.7	\$0.6	\$0.6	(\$0.3)	-31.8%	-3.1%
Total Costs	\$11.1	\$11.0	\$12.0	\$10.7	\$9.5	\$9.3	\$9.4	\$9.2	\$8.5	\$9.0	\$8.9	\$9.7	\$9.7	(\$1.4)	-12.8%	-1.1%
Compensation Costs (Salaries + Overtime + Benefits)	\$9.9	\$9.7	\$10.7	\$10.1	\$8.9	\$8.7	\$8.8	\$8.3	\$7.6	\$8.2	\$8.0	\$8.9	\$9.0	(\$0.9)	-9.3%	-0.8%
Compensation Costs as % of Total Costs	88.7%	88.2%	89.6%	95.0%	94.4%	93.5%	92.8%	90.2%	89.5%	90.5%	90.1%	92.2%	92.2%	3.5%		
FTEs (\$ Actual)	143	137	145	135	115	107	111	106	102	88	90	93	94	(49)	-34.4%	-3.5%
Average Salaries + Overtime per FTE	\$51,707	\$52,640	\$53,792	\$53,884	\$54,563	\$58,850	\$57,875	\$57,550	\$53,747	\$66,713	\$63,162	\$68,045	\$67,648	\$15,941	30.8%	2.3%
Average Benefits per FTE	\$17,267	\$17,923	\$20,183	\$21,099	\$23,024	\$22,731	\$21,167	\$21,137	\$20,436	\$26,390	\$25,663	\$27,774	\$27,780	\$10,513	60.9%	4.0%
Average Compensation Costs per FTE	\$68,974	\$70,563	\$73,975	\$74,983	\$77,588	\$81,581	\$79,042	\$78,687	\$74,183	\$93,103	\$88,824	\$95,819	\$95,428	\$26,454	38.4%	2.7%

Note: FTEs represents budgeted FTEs for 2006-2018.

Sources: SUMMIT_002054603; Summit 2010, 2014, and 2018 Operating Budget.

These expenditures and key metrics are further exhibited in the graph below:

Graph V.D.6-1: Expenditures and Budgeted FTEs

In my review of the expenditures and key metrics of the Operations Division, I noted the following:

- Total compensation costs (salaries and benefits) fluctuated between 2006 and 2018, but decreased overall by \$0.9 million (or 9.3%).

HIGHLY CONFIDENTIAL

- The CAGR of average compensation per FTE was 2.7%, which is slightly above the average inflation rate of state and local government employees' compensation of 2.4%.³⁰⁰
- Motor Vehicle Fuel/Repair costs decreased by \$0.2 million (or 56.1%) from 2006 to 2018.
- There was a net decrease of 49 budgeted FTEs (or 34.4%) between 2006 and 2018.

Compensation Costs

Total compensation costs (salaries and benefits) decreased by \$0.9 million (or 9.3%) from 2006 to 2018 and represent 91.3% of total expenditures during the period.³⁰¹ The Operations Division experienced hiring and personnel count challenges beginning in 2008 as a result of staffing cuts due to the financial crisis, a county wide hiring freeze, and other budget cuts.³⁰² Headcount steadily decreased between 2008 and 2015 and then began to slightly recover as budget pressures eased. Therefore, based on my review of the available information, I determine there were no incremental increases in compensation costs related to prescription opioids or opioids generally.

Motor Vehicle Fuel/Repair Costs

Motor Vehicle Fuel/Repair costs is the only potentially affected non-compensation cost funded by the General Fund. This account does not exhibit a consistent pattern, but decreased 56.1% from 2006 to 2018. As previously described, the Patrol Bureau is not funded by the General Fund, so any fuel and repair expense for the patrol cars related to the policing contracts are accounted for in a separate cost category and funded by non-county funds. Prisoner transports account for the majority of motor vehicle use funded by the County. However, the Operations Division has not experienced increases in prison transports between 2006 and 2017. Table V.D.6-2 and Graph V.D.6-2 is detail of prisoner transports from 2006 to 2017.

³⁰⁰ See U.S. Bureau of Labor Statistics, Employment Cost Index (NAICS basis), 2007-2018 – Series I.D. CIU3010000000000Q (Not Seasonally Adjusted).

³⁰¹ See SUMMIT_002054603.

³⁰² See deposition of Shane Barker dated November 28, 2018, pp. 12-17 and Exhibit 1, and Summit 2014 Operating Budget, pp. 36-37.

HIGHLY CONFIDENTIAL

Additionally, total prisoner transports from 2003-2005 averaged 15,115 per year,³⁰³ which is in line with total 2017 transports. Therefore, based on my review of the available information, I determine there were no incremental increases in Motor Vehicle Fuel/Repair costs related to prescription opioids or opioids generally.

Table V.D.6-2: Detail of Prisoner Transports

Prisoner Transports	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
To/From Correctional Institutions	2,461	2,186	1,806	1,769	1,821	1,562	1,646	1,557	1,999	2,118	1,998	1,904
To/From Juvenile Facilities	280	262	293	250	207	210	211	233	252	228	229	204
Common Pleas Court	9,644	9,403	9,262	8,312	7,497	8,271	9,186	9,730	9,329	9,302	10,590	10,384
Other Destinations / Local Facilities / Other County Jails	704	217	967	917	1,084	460	252	399	308	261	421	240
New Prisoners From Court	640	476	727	651	1,037	885	592	724	840	619	862	666
Prisoner Transports - Subtotal	13,729	12,544	13,055	11,899	11,646	11,388	11,887	12,643	12,728	12,528	14,100	13,398
Closed Circuit Television (CCTV)	2,683	2,996	2,153	1,902	1,805	1,906	2,627	2,306	1,872	1,838	2,091	1,977
Total	16,412	15,540	15,208	13,801	13,451	13,294	14,514	14,949	14,600	14,366	16,191	15,375

Note 1: Although movement of inmates arraigned via Closed Circuit Television (CCTV) only occurs within the jail, civilian staff assigned to this unit are responsible for scheduling the hearings, so the transports related to CCTV have been included in our analysis. Even without those figures, prisoner transports are relatively flat and decreased overall from 2006 to 2017.

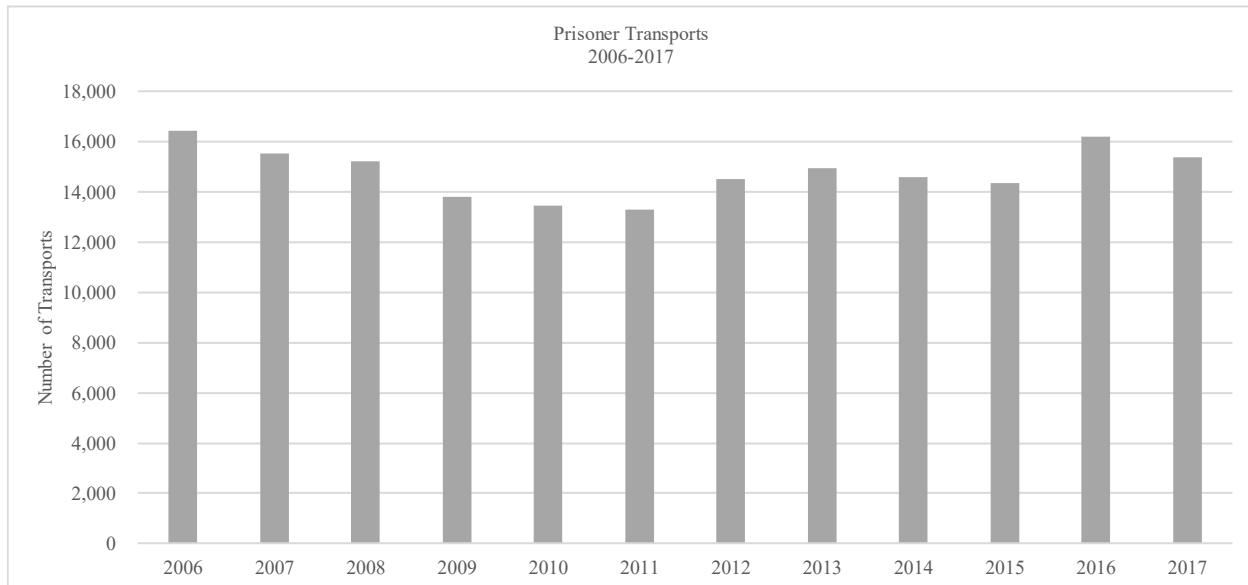
Note 2: Total amount for 2006, 2010, and 2017 differs from the source file. Totals do not add correctly in the source file.

Note 3: In years where Annual Reports for the Sheriff's Office were unavailable, those for the Court of Common Pleas were used instead.

Sources: Sheriff's Office 2006-2007, 2009, and 2013-2017 Annual Reports; Court of Common Pleas 2008 and 2010-2012 Annual Reports.

³⁰³ See Sheriff's Office 2003 Annual Report, p. 31, Sheriff's Office 2004 Annual Report, p. 33, and Sheriff's Office 2005 Annual Report, p. 34.

HIGHLY CONFIDENTIAL

Graph V.D.6-2: Prisoner Transports**Other Non-Compensation Costs**

Non-compensation costs include “Contract Services,” “Local Grant Match,” and other non-compensation related accounts, such as supplies, telephone, and office service charges. Non-compensation costs decreased by \$0.3 million between 2006 and 2018. Based on the account descriptions and my review of the available information, it does not appear these accounts contain costs related to prescription opioids or opioids generally.

In addition, I reviewed the 35A drug incidents file produced by the Plaintiffs for the Sheriff’s Office from 1999 to 2017.^{304,305} 35A drug violations include Ohio Offense Codes captured under the National Incident Based Reporting System (NIBRS) that relate to the “unlawful cultivation, manufacture, distribution, sale, purchase, use, possession, transportation, or importation of any controlled drug or narcotic substance.”³⁰⁶ While it is important to note that the majority of the services funded by the General Fund revenues are not related to patrol type

³⁰⁴ See ODPS-002-0000001, ODPS-002-0000004, and SUMMIT_000064914.

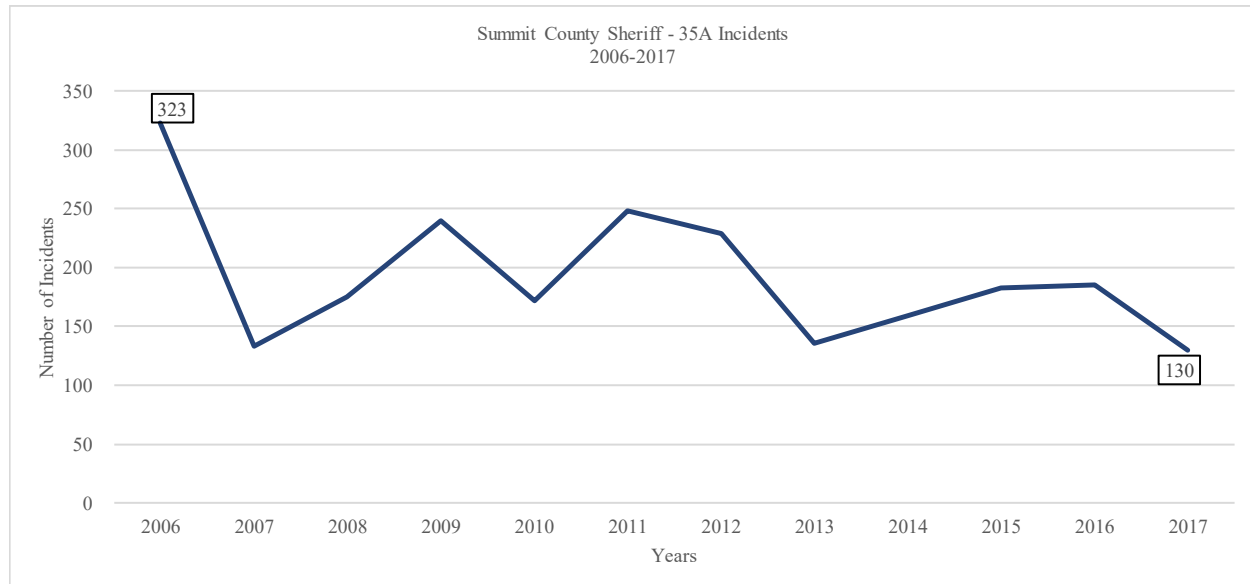
³⁰⁵ I am aware that Cutler used NIBRS charge data in analysis of his drug-related % of crimes, but the data produced by Plaintiffs does not match Cutler’s data; therefore, I have used the information specifically produced for the litigation in this analysis.

³⁰⁶ See Office of Criminal Justice Services, Ohio Incident Based Reporting System, Data Collection and Submission Specifications, March 2017, Appendix B – NIBRS Codes and Definitions.

HIGHLY CONFIDENTIAL

activities, I did note that 35A drug incidents varied significantly from year to year, but declined by 193 incidents from 2006 to 2017.³⁰⁷ Graph V.D.6-3 depicts the 35A drug incidents from 2006 to 2017.

Graph V.D.6-3: 35A Drug Incidents



Source: SUMMIT_000064914.

Based on the above and my review of the available information, I determined there were no incremental increases in the costs for the Operations Division related to prescription opioids or opioids generally.

7. Sheriff's Office – Corrections Division

The Corrections Division of the Summit County Sheriff's Office is responsible for the County Jail Operations, Records and Identification Bureau, Concealed Carry Registration, Inmate Services, Support Services, Jail Population Control, Medical and Mental Health Services, and the Glenwood Jail.^{308,309} The County Jail opened in August 1990 with a capacity of 402

³⁰⁷ There were 323 incidents related to 35A drug violations in 2006 and only 130 in 2017 (see ODPS-002-0000001, ODPS-002-0000004, and SUMMIT_000064914).

³⁰⁸ See Sheriff's Office 2017 Annual Report, pp. 41-52.

³⁰⁹ I am aware that there has been recent testimony stating that the Glenwood Jail is being repurposed into a Community Alternative Sentencing Center solely run by Oriana House, and that the deputies who were at Glenwood

HIGHLY CONFIDENTIAL

inmates. Through multiple expansions and adding double bunked cells, the current capacity is 743 inmates.³¹⁰ The County Jail is a full-service detention center operating 24 hours a day, 365 days a year.³¹¹

The County Jail is funded through the General Fund and Special Revenue Funds. Special Revenue Funds include fees related to the purchase of commissary by inmates and from the charges for phone calls made by inmates.³¹² My analysis focused on expenses funded through the Summit County General Fund, which is separately accounted for within the Banner accounting system.³¹³

The information I considered in my analysis of the County Jail included, but was not limited to, the following:

- County budgets and CAFRs
- Accounting data from Summit County's Banner accounting system
- Sheriff's Office annual reports
- Sheriff's Office grant applications
- Headcount data
- Medication Assisted Treatment data
- Depositions and exhibits of relevant personnel
- Publicly available information

a) Identification of Direct Costs

Based on my review of the available information, I identified no direct costs related to prescription opioids for the County Jail. As stated above, although this case involves claims related to harm caused by prescription opioids, I have also analyzed costs associated with opioid

Jail have been moved back to Summit County Jail (see 30(b)(6) deposition of Brian Nelsen dated January 24, 2019, pp. 167:9-22 and 172:11-20).

³¹⁰ See Sheriff's Office 2017 Annual Report, p. 44.

³¹¹ See Summit 2019 Operating Budget, p. 232.

³¹² These two Special Revenue Funds are the Inmate Welfare Fund and the Inmate Phone Commission (see Summit 2018 Operating Budget, pp. 293-301).

³¹³ See SUMMIT_002054603.

HIGHLY CONFIDENTIAL

abuse generally in the event that the Court finds damages warranted beyond the harms caused solely by prescription opioid abuse. Thus, regarding opioids generally, I identified total direct costs of \$237,990 for the County Jail.³¹⁴ Based on testimony of Mr. Barker, the County Jail incurred additional costs related to opioid abuse including the purchase of a body scanner in 2017, increased staff training on pat-downs, and initiation of the immediate changing of women prisoners when they enter the County Jail.³¹⁵

Regardless of the fact that the body scanner scans for all contraband (i.e., drugs and weapons),³¹⁶ I attempted to identify this cost in the documents available to me. Based on the accounting data, the repairs and equipment expenditures for the County Jail do not reflect a purchase of equipment in 2017.³¹⁷ However, I was able to identify legislation passed by the Summit County Council for the purchase of the SecurPass body scanner for \$237,990.^{318,319}

The additional trainings on pat-downs that were implemented in the last couple of years are internal trainings involving the sergeants of the jail and security staff, and it is part of the on-job training for new deputies.³²⁰ I reviewed the division accounting records and noted that no expenses have been booked to Training Expense. It appears that these additional trainings were conducted internally by existing staff and did not result in any additional cost.

Additionally, Brian Nelsen testified the County Jail approved the hiring of five new inmate service workers in 2018 in response to the overcrowding and jail population

³¹⁴ See Appendix 5 – Summit County Direct Costs.

³¹⁵ See deposition of Shane Barker dated November 28, 2018, pp. 111:9-18, 114:12-115:7, 237:10-240:2, and 304:11-305:6.

³¹⁶ See Sheriff's Office 2017 Annual Report 2017, p. 4 and deposition of Shane Barker dated November 28, 2018, p. 244:7-10.

³¹⁷ See SUMMIT_002054603.

³¹⁸ See <https://council.summitoh.net/index.php/legislative-information/legislation/2017/finish/131/8689>.

³¹⁹ Notes from Mr. Liebman's interview with Captain Barker on July 31, 2018 indicated that the body scanner equipment cost \$250,000 plus an annual cost of \$25,000 for maintenance and training. However, Captain Barker testified in November 2018 that he wouldn't know anything about the costs for additional trainings or any other opioid-related costs incurred by the Jail (see deposition of Shane Barker dated November 28, 2018, pp. 192:7-25, 227:18-228:4, 236:15-21, and 241:2-15).

³²⁰ See deposition of Shane Barker dated November 28, 2018, pp. 237:10-239:4.

HIGHLY CONFIDENTIAL

challenges.³²¹ Mr. Nelsen did not identify a specific cost for these additional employees but stated that they would be paid with “[c]ounty general fund dollars.”³²² I reviewed the accounting data and budgets to determine if I could identify any such hires made in 2018 and/or expense related to these additional employees. The total budgeted jail employee count actually declined from 2017 to 2018; and specifically, inmate service workers declined by two personnel in 2018.³²³ There is also nothing in the accounting data for 2018 that would indicate five additional resources were hired. Therefore, whether or not these hires were approved in 2018 as Mr. Nelsen testified, it does not appear that any such hires were actually made in 2018.

Any other direct costs identified by Summit County personnel, such as medically assisted treatment for prisoners, are provided through either a grant with the Summit County ADM Board³²⁴ or through the contracted medical provider, Advanced Correctional Healthcare,³²⁵ and therefore, are not costs borne by the county.

b) Identification and Analysis of Incremental Costs

Based on my review of the available information, I did not identify any incremental costs for the County Jail between 2006 and 2018, whether related either to prescription opioids or opioids generally. My analysis of incremental costs is presented below.

Table V.D.7.1 is a summary of expenditures and key metrics of the County Jail for the period 2006 through 2018.

³²¹ See 30(b)(6) deposition of Brian Nelsen dated January 24, 2019, pp. 167:2-172:24.

³²² See 30(b)(6) deposition of Brian Nelsen dated January 24, 2019, p. 172:21-24.

³²³ See Summit 2018 Operating Budget 2018, p. 276.

³²⁴ See SUMMIT_001970930, Sheriff’s Office 2016 Annual Report, p. 49, and deposition of Shane Barker dated November 28, 2018, pp. 275:2-276:1 and Exhibit 16.

³²⁵ See deposition of Shane Barker dated November 28, 2018, pp. 149:8-150:11 and 212:15-214:5.

HIGHLY CONFIDENTIAL

Table V.D.7.1: Summary of Expenditures and Key Metrics

County Jail (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	A (06-18)	% A (06-18)	CAGR (06-18)
Salaries (Excludes Overtime)	\$12.3	\$12.8	\$13.1	\$12.7	\$11.3	\$11.6	\$11.1	\$11.1	\$11.4	\$11.9	\$11.8	\$11.9	\$12.1	(\$0.2)	-1.7%	-0.1%
Overtime	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.3	\$0.5	\$0.7	\$0.5	\$0.9	\$0.9	\$1.1	\$1.0	642.4%	18.2%
Benefits	\$4.2	\$4.5	\$4.8	\$5.0	\$5.1	\$4.7	\$4.3	\$4.3	\$4.6	\$4.9	\$5.0	\$5.1	\$5.1	\$0.9	22.4%	1.7%
Contract Services	\$2.5	\$3.0	\$2.9	\$3.1	\$3.0	\$2.8	\$2.7	\$2.9	\$3.0	\$3.1	\$3.1	\$3.2	\$3.1	\$0.5	20.7%	1.6%
Other Non-Compensation Costs	\$0.9	\$1.0	\$0.8	\$0.8	\$0.7	\$0.5	\$0.4	\$0.6	\$0.5	\$0.6	\$0.7	\$0.4	\$0.5	(\$0.4)	-45.8%	-5.0%
Total Costs	\$20.1	\$21.4	\$21.7	\$21.8	\$20.1	\$19.8	\$18.9	\$19.3	\$20.2	\$21.0	\$21.5	\$21.5	\$21.9	\$1.8	9.1%	0.7%
Compensation Costs (Salaries + Overtime + Benefits)	\$16.6	\$17.4	\$18.1	\$17.9	\$16.5	\$16.5	\$15.7	\$15.9	\$16.6	\$17.3	\$17.7	\$17.9	\$18.3	\$1.7	10.3%	0.8%
Compensation Costs as % of Total Costs	82.9%	81.4%	83.3%	82.0%	81.8%	83.1%	83.2%	82.1%	82.3%	82.6%	82.5%	83.3%	83.8%	0.9%		
FTEs	254	266	262	249	198	206	209	205	202	212	208	209	206	(48)	-18.9%	-1.7%
(\$ Actual)																
Average Salaries + Overtime per FTE	\$48,967	\$48,674	\$50,760	\$51,895	\$57,669	\$57,237	\$54,741	\$56,495	\$59,804	\$58,743	\$61,026	\$61,233	\$64,141	\$15,174	31.0%	2.3%
Average Benefits per FTE	\$16,489	\$16,792	\$18,334	\$19,965	\$25,582	\$22,987	\$20,554	\$20,985	\$22,595	\$23,175	\$24,166	\$24,529	\$24,894	\$8,405	51.0%	3.5%
Average Compensation Costs per FTE	\$65,456	\$65,466	\$69,094	\$71,860	\$83,251	\$80,224	\$75,295	\$77,479	\$82,399	\$81,918	\$85,192	\$85,762	\$89,035	\$23,579	36.0%	2.6%
Average Daily Jail Census	688	649	663	622	610	621	644	642	639	636	680	717		29	4.2%	0.4%
Prisoner Bookings	15,352	14,835	14,882	14,564	14,078	12,954	12,279	11,802	11,318	11,563	12,603	11,667		(3,685)	-24.0%	-2.5%
Prisoner Releases	15,290	14,925	14,727	14,738	13,928	13,020	12,252	11,837	11,333	11,496	12,581	11,852		(3,438)	-22.5%	-2.3%

Note 1: FTEs represents budgeted FTEs for 2006-2018.

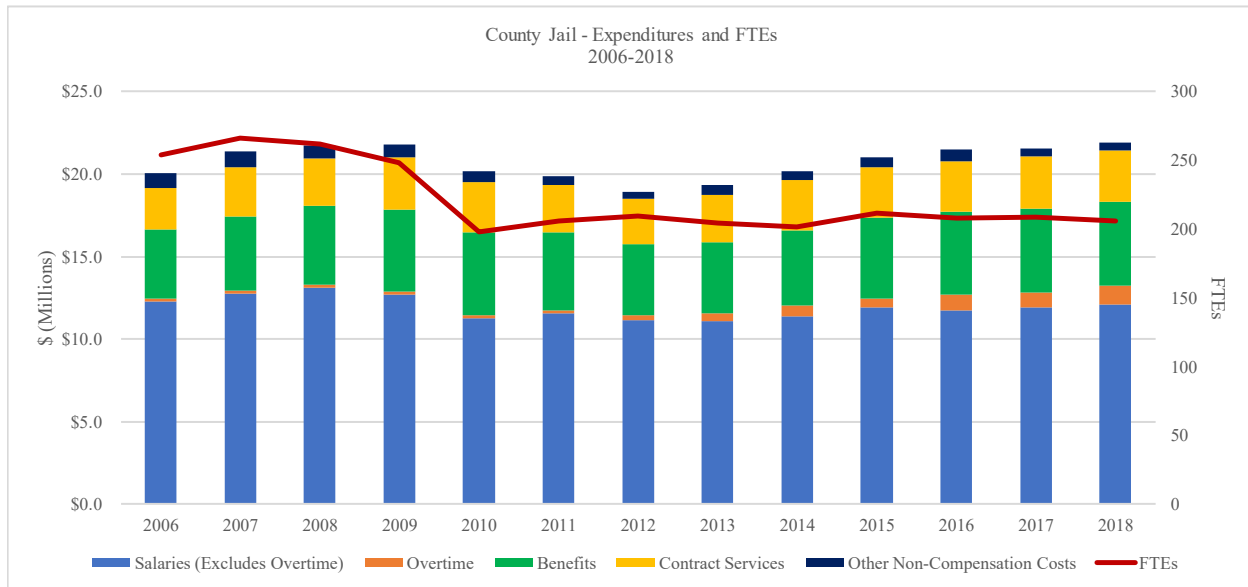
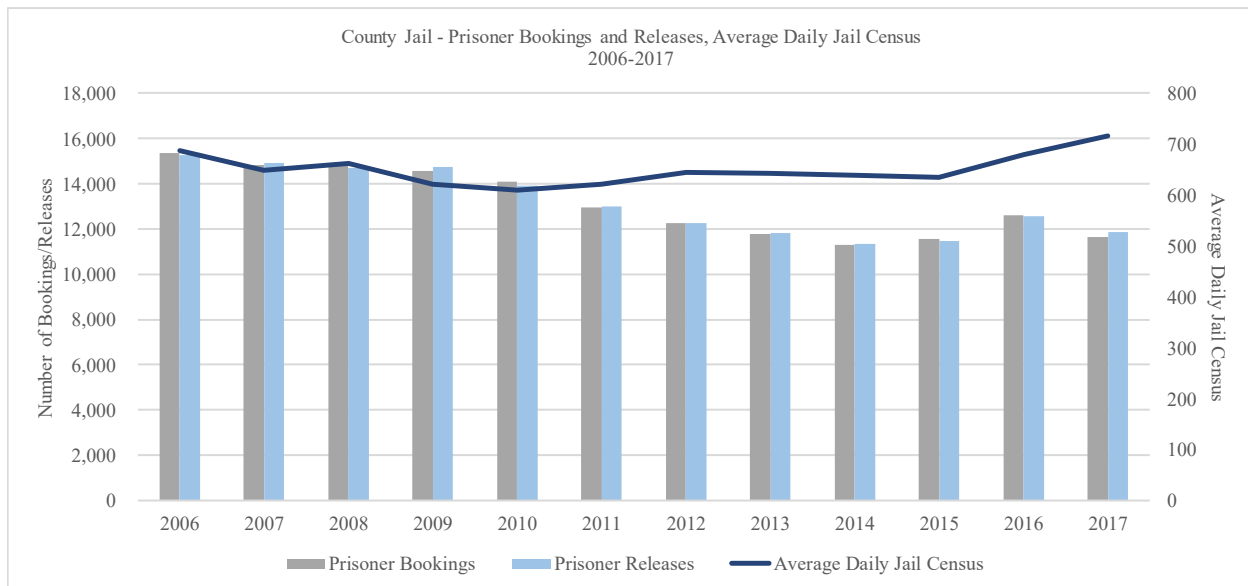
Note 2: Daily jail census data and prisoner bookings/release data was not available for 2018.

Note 3: Absolute change, percent change, and CAGR metrics for average daily jail census and prisoner bookings/releases are calculated based on the years data was available.

Sources: SUMMIT_002054603; Summit 2010, 2014, and 2018 Operating Budget; Summit County 2007 and 2017 CAFR.

These expenditures and key metrics are further exhibited in the graphs below:

HIGHLY CONFIDENTIAL

Graph V.D.7-1: Expenditures and Budgeted FTEs**Graph V.D.7-2: Daily Jail Census and Prisoner Bookings/Releases**

In my review of the expenditures and key metrics of the County Jail, I noted the following:

- Total compensation costs (salaries and benefits) fluctuated between 2006 and 2018, but increased overall by \$1.7 million (or 10.3%).

HIGHLY CONFIDENTIAL

- The CAGR of average compensation per FTE was 2.6%, which is slightly above the average inflation rate of state and local government employees' compensation of 2.4%.³²⁶
- Contract Services costs increased by \$0.5 million (or 20.7%) from 2006 to 2018.
- There was a net decrease of 48 budgeted FTEs (or 18.9%) between 2006 and 2018.
- The average daily jail census increased by only 4.2% from 2006 to 2017, while prisoner bookings declined by 24.0% over the same period.

Compensation Costs

Total compensation costs (salaries and benefits) increased by \$1.7 million (or 10.3%) from 2006 to 2018 and represent 82.6% of total expenditures during the period.³²⁷ The nature of the county jail operations is heavily dependent on personnel. Salaries and benefits per employee have increased from 2006 to 2018, but the increases appear to be related to standard pay increases (the CAGR of average compensation per FTE was 2.6%).

The county jail experienced decreases in FTEs following the financial crisis and resulting budget cuts.³²⁸ Overcrowding is a recurrent and long standing issue, predating the opioid crisis, and has been a challenge for the County Jail for decades.³²⁹ By 2007, county officials had explored several options to reduce crowding including, "court orders, double-bunking, and six consultant studies over fifteen years."³³⁰ The County Jail has not returned to pre-recession staffing levels, and a portion of the County Jails had to be closed in 2015 due to insufficient staffing levels.³³¹

These overcrowding issues and the persistent shortage of staff pre-date 2006 and are unrelated to efforts by the county related to opioid abuse. I nonetheless examined overtime

³²⁶ See U.S. Bureau of Labor Statistics, Employment Cost Index (NAICS basis), 2007-2018 – Series I.D. CIU3010000000000Q (Not Seasonally Adjusted).

³²⁷ See SUMMIT_002054603.

³²⁸ See deposition of Shane Barker dated November 28, 2018, pp. 12-17 and Exhibit 1.

³²⁹ See Sheriff's Office 2007 Annual Report, p. 26.

³³⁰ See Sheriff's Office 2007 Annual Report, p. 26.

³³¹ See Sheriff's Office 2017 Annual Report, p. 44.

HIGHLY CONFIDENTIAL

expenses between 2006 and 2018 to determine if there was any overtime attributable to prescription opioids or opioids generally. However, this does not appear to be the case. While the current jail population at the end of 2017 was the highest it has been, prisoner bookings have been consistently declining since 2006. Also, as I stated previously, jail overcrowding has been a problem for the County Jail for decades.³³²

Additionally, I am aware of a State of Ohio program recently enacted in 2017³³³ called Targeted Community Alternatives to Prison (“T-CAP”), that has been implemented in Summit County and paid for by grant funding³³⁴ to reduce the number of low-level, non-violent, Felony 5 offenders in the County Jail.³³⁵ Felony 5 offenders are those sentenced for less than one year³³⁶ and primarily include low-level drug offenses.³³⁷ The T-CAP program has allowed these offenders to be removed from the prison population,³³⁸ and certain Felony 5 offenders are no longer eligible to serve sentences at Ohio Department of Rehabilitation and Correction (“DRC”) facilities.³³⁹ Therefore, it would appear that any additions to the inmate population in recent years is not due to the low-level drug crimes in which the county and the City of Akron personnel have testified relate to the opioid population.^{340,341}

³³² See Sheriff’s Office 2007 Annual Report, p. 26.

³³³ See <https://drc.ohio.gov/tcap> and <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA132-HB-49>.

³³⁴ See <https://drc.ohio.gov/tcap>, <http://www.akronlegalnews.com/editorial/19512>, and 30(b)(6) deposition of Brian Nelsen dated January 24, 2019, pp. 162:5-163:12.

³³⁵ See <https://drc.ohio.gov/tcap> and <http://www.akronlegalnews.com/editorial/19512>.

³³⁶ See <http://codes.ohio.gov/orc/2929.14>.

³³⁷ See 30(b)(6) deposition of Brian Nelsen dated January 24, 2019, pp. 162:5-163:12 and deposition of Gertrude Wilms dated August 13, 2018, pp. 90:14-93:7.

³³⁸ See <http://www.akronlegalnews.com/editorial/19512>.

³³⁹ See 30(b)(6) deposition of Brian Nelsen dated January 24, 2019, p. 162:15-23, 30(b)(6) deposition of Greta Johnson dated January 15, 2019, p.160:15-20, and <https://drc.ohio.gov/tcap>.

³⁴⁰ See 30(b)(6) deposition of Brian Nelsen dated January 24, 2019, pp. 162:5-163:12 and 167:9-168:5, and deposition of Gertrude Wilms dated August 13, 2018, pp. 90:14-93:7 and 97:1-13.

³⁴¹ The Plaintiffs produced closed case information for the Prosecutor’s Office; however, there is no way to discern what proportion of cases were ultimately sentenced to the County Jail and the data was filtered for only a certain subset of offenses (see SUMMIT_000341980 and SUMMIT_001505077).

HIGHLY CONFIDENTIAL

Based on the above and my review of the available information, I determined there were no incremental increases in compensation costs related to prescription opioids or opioids generally.

Contract Services Costs

Based on my review of the available information, Contract Services primarily consist of three County Jail contracts: (1) Advanced Correctional Healthcare (medical), (2) Aramark (food), and (3) Geauga County (outsourced inmate boarding).³⁴² These expenses make up approximately 14.3% of total General Fund expenses per year.³⁴³ Contract Services has slightly increased since 2006, but this appears to be primarily due to the outsourced boarding contracts that began in 2016 as a result of the previously described staffing level challenges at the County Jail and from the medical contract increasing as Glenwood Jail was added in the fall of 2014.³⁴⁴ Therefore, based on my review of the available information, I determined there were no incremental increases in Contract Services costs related to prescription opioids or opioids generally.

Other Non-Compensation Costs

Non-compensation costs include “Motor Vehicle Fuel/Repair,” “Uniform Allowance,” and other non-compensation related accounts, such as supplies, telephone, and office service charges. Non-compensation costs decreased by \$0.4 million between 2006 and 2018. Based on the account descriptions and my review of the available information, it does not appear these accounts contain costs related to prescription opioids or opioids generally.

8. Alternative Corrections

The Summit County Alternative Corrections division is comprised of a number of programs designed to reduce the overall jail population. The Alternative Corrections’ programs between 2006 and 2018 include:

³⁴² See Summit 2012-2019 Operating Budgets and <https://www.ohio.com/article/20150711/NEWS/307119499>.

³⁴³ See SUMMIT_002054603.

³⁴⁴ See <https://www.ohio.com/article/20150711/NEWS/307119499>, Summit 2015 Operating Budget, p. 275.

HIGHLY CONFIDENTIAL

- Day Reporting: Population served includes convicted felony, misdemeanor, traffic, and pre-trial offenders on probation who do not require secure confinement but require greater supervision than intensive supervision. Each offender is assessed utilizing the Ohio Risk Assessment System (“ORAS”).³⁴⁵
- Driver Intervention: Population served includes first time DUI misdemeanor offenders sentenced to a mandatory intervention program. The provider will conduct a substance abuse assessment to determine the degree of the offender’s chemical dependence.³⁴⁶
- Multiple Offender: Population served includes repeat DUI offenders and direct court placements into Glenwood Jail. The provider will conduct a substance abuse assessment to determine the degree of the offender’s chemical dependence.³⁴⁷
- Home Incarceration / Monitoring: Population served includes convicted felony, misdemeanor, traffic, and pre-trial offenders who require a high degree of monitoring, but do not require secure confinement. Services include electronic home monitoring.³⁴⁸ Each offender is assessed utilizing the Ohio Risk Assessment System (“ORAS”).³⁴⁹
- Halfway House / Residential Community: Population served includes probation violators and offenders with 30-180 days remaining on prison sentence that qualify for release to residential community corrections. Each offender is assessed utilizing the ORAS.³⁵⁰
- Intensive Out Patient (“IOP”): Structured chemical dependency program that includes providing qualifying offenders with comprehensive assessments, education and treatment in an effort to deter criminal behavior.³⁵¹

³⁴⁵ See Summit 2018 Operating Budget, p. 129.

³⁴⁶ See Summit 2018 Operating Budget, p. 128.

³⁴⁷ See Summit 2013 Operating Budget, p. 125 and SUMMIT_002052845, p. 2.

³⁴⁸ See Summit 2018 Operating Budget, p. 127.

³⁴⁹ See SUMMIT_002052845, p. 3.

³⁵⁰ See Summit 2018 Operating Budget, p. 126.

³⁵¹ See SUMMIT_002052845, p. 3 and Summit 2013 Operating Budget, p. 127.

HIGHLY CONFIDENTIAL

- Pre-Trial Services: Services include supervision of defendants to assure compliance with conditions of release from jail and bond requirements.³⁵²

These services are administered under a fixed-price Community Corrections Contract with a third-party private service provider, Oriana House. The contracts are set at the beginning of each year and are not to exceed pre-determined amounts.³⁵³ The only General Fund expenditures related to the Alternative Corrections programs are the contract costs. There are no personnel or compensation costs.

The information I considered in my analysis of Alternative Corrections included, but was not limited to, the following:

- County budgets and CAFRs
- Accounting data from Summit County's Banner accounting system
- Documents related to the 2013, 2015, and 2018 Summit County Community Corrections Contracts
- Oriana House annual reports
- Depositions and exhibits of relevant personnel
- Publicly available information

a) Identification of Direct Costs

Based on my review of the available information, I did not identify any direct costs for Alternative Corrections, whether related either to prescription opioids or opioids generally.

b) Identification and Analysis of Incremental Costs

Based on my review of the available information, I did not identify any incremental costs for Alternative Corrections between 2006 and 2018, whether related either to prescription opioids or opioids generally. My analysis of incremental costs is presented below.

³⁵² See SUMMIT_002052845, p. 2.

³⁵³ See SUMMIT_000013095.

HIGHLY CONFIDENTIAL

Table V.D.8.1 is a summary of expenditures and key metrics of Alternative Corrections for the period 2006 through 2018.

Table V.D.8-1: Summary of Expenditures and Key Metrics

Alternative Corrections (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Δ (06-18)	% Δ (06-18)	CAGR (06-18)
Oriana House	\$5.0	\$5.3	\$5.5	\$5.9	\$5.7	\$5.7	\$5.3	\$5.4	\$5.5	\$5.6	\$5.9	\$5.9	\$5.9	\$0.9	18.9%	1.5%

Source: SUMMIT_002054603.

In my review of the expenditures and key metrics of Alternative Corrections, I noted the following:

- Oriana House costs increased by \$0.9 million (or 18.9%) from 2006 to 2018.

Oriana House Costs

Expenditures associated with the Oriana House contract increased by \$0.9 million from 2006 to 2018. However, almost 40%³⁵⁴ of the total increase was the result of adding the Pre-Trial Services program in 2007.³⁵⁵ The contract increased by 7% in 2007 “to cover the cost of pretrial release supervision.”³⁵⁶ There were additional 3% general contract price increases in 2014, 2015, and 2016, but the budget documents did not identify any specific reason for the increases.³⁵⁷ The increases appear to be related to typical increases in operating costs at Oriana House.³⁵⁸

Since expenditures by program were not provided in the accounting detail, I reviewed other data to determine if there were any incremental program increases due to prescription or other opioids. The county operating budgets provided program detail for only certain years

³⁵⁴ The actual contract expenditure increased \$349,470 from 2006 to 2007 ($\$349,470/\$940,867 = 37\%$). See SUMMIT_002054603.

³⁵⁵ See Summit 2007 Operating Budget, p. 22.

³⁵⁶ See Summit 2007 Operating Budget, p. 22.

³⁵⁷ See Summit 2014 Operating Budget, p. 120, Summit 2015 Operating Budget, p. 129, and Summit 2016 Operating Budget, p. 130.

³⁵⁸ See deposition of Anne Connell-Freund dated January 24, 2019, pp. 238:20-239:14.

HIGHLY CONFIDENTIAL

between 2006 and 2018. Table V.D.8.2 is detail of the budgeted Alternative Corrections program costs.

Table V.D.8.2: Budgeted Alternative Corrections Program Cost

Alternative Corrections Program (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	\$ Δ (08-18)	% Δ (08-18)	CAGR (08-18)
Day Reporting Program			\$0.2				\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.1	74.8%	5.7%
Driver Intervention Program			\$0.0				\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	236.7%	12.9%
Multiple Offender Program			\$0.8				\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	-\$0.2	-30.6%	-3.6%
Home Incarceration / Monitoring			\$0.3				\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.9	\$0.9	\$0.5	163.7%	10.2%
Residential Community Corrections Program			\$2.7				\$2.3	\$2.3	\$2.4	\$2.4	\$2.4	\$2.5	\$2.5	-\$0.2	-7.0%	-0.7%
Intensive Outpatient Program			\$1.1				\$1.1	\$1.1	\$1.2	\$1.2	\$1.2	\$1.3	\$1.3	\$0.2	14.1%	1.3%
Pre-Trial Program			\$0.4				\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	-\$0.1	-18.7%	-2.0%
Total Budgeted Contract Amount	\$4.6	\$5.3	\$5.5	\$5.4	\$5.8	\$5.8	\$5.3	\$5.3	\$5.6	\$5.7	\$5.7	\$5.9	\$5.9	\$0.4	7.9%	0.8%

Note: A detailed breakout of Alternative Corrections Programs is not available for 2006-2007 and 2009-2011.

Source: Summit County 2006-2018 Operating Budgets.

Overall, total budgeted program costs remained relatively flat over time growing at a CAGR of 0.8% between 2008 and 2018. These are fixed price contracts and it does not appear that any new programs were added after the Pre-Trial Services program in 2007.³⁵⁹ Additionally, it does not appear the program costs increased for any reason other than normal contract increases.

Based on the above and my review of the available information, I determined there were no incremental increases in Oriana House costs related to prescription opioids or opioids generally.

9. Adult Probation Department

The Summit County Adult Probation Department is part of the Common Pleas Court-General Division. The department supervises over 4,000 probationers to help “reduce recidivism and the impact of crime on victims and the community” through regulated programs.³⁶⁰ The Adult Probation Department supervises a multitude of programs consisting of:

³⁵⁹ See Summit 2007 Operating Budget, p. 22.

³⁶⁰ See Court of Common Pleas 2016 Annual Report, p. 25.

HIGHLY CONFIDENTIAL

- Intensive Supervision Program (“ISP”): State funded program that provides an alternative to prison incarceration and helps divert felony offenders from state and local jails.³⁶¹
- Felony OVI³⁶² Supervision: Program to ensure all Felony OVI probationers comply with statutory requirements and provide referrals to outside agencies for substance abuse programming for those with required treatment recommendations.³⁶³
- Mental Health Unit: Responsible for the supervision of individuals diagnosed with a “severe mental illness that hinders their ability to function on a daily basis.”³⁶⁴ This unit collaborates with the Summit County Jail Behavioral Unit, C.I.T. and the ADM Board.³⁶⁵
- Turning Point Program (previously the Felony Drug Court):³⁶⁶ Court-supervised diversionary program for substance dependent offenders aimed at rehabilitating offenders and helping offenders “transform in to positive, contributing community members.”³⁶⁷
- Opiate Unit: Dedicated program started in 2014 for the supervision of low to moderate risk offenders to “address the specialized needs of the opiate user.”³⁶⁸ This unit is funded through the SMART grant.³⁶⁹
- Intervention in Lieu of Conviction (“IILC”) Unit: Diversionary program for individuals who have addiction or mental health issues as defined by the Ohio Revised Code.³⁷⁰

³⁶¹ See Court of Common Pleas 2016 Annual Report, p. 27.

³⁶² Operating a Vehicle Under the Influence (see Court of Common Pleas 2016 Annual Report, p. 28).

³⁶³ See Court of Common Pleas 2016 Annual Report, p. 28.

³⁶⁴ See Court of Common Pleas 2016 Annual Report, p. 29.

³⁶⁵ See Court of Common Pleas 2016 Annual Report, p. 29.

³⁶⁶ See Court of Common Pleas 2013 Annual Report, p. 32.

³⁶⁷ See Court of Common Pleas 2016 Annual Report, pp. 31-32

³⁶⁸ See Court of Common Pleas 2016 Annual Report, p. 34.

³⁶⁹ See Court of Common Pleas 2016 Annual Report, p. 34.

³⁷⁰ See Court of Common Pleas 2016 Annual Report, p. 35.

HIGHLY CONFIDENTIAL

Other specialty courts and programs not mentioned above include Pre-Sentence Investigations, Valor Court, Domestic Violence Unit, Sex Offender Unit, Kiosk Reporting Program, Community Service, and a Re-Entry Court.³⁷¹

The information I considered in my analysis of the Adult Probation Department included, but was not limited to, the following:

- County budgets and CAFRs
- Accounting data from Summit County's Banner accounting system
- Court of Common Pleas annual reports
- Court of Common Pleas grant applications
- Headcount data
- Depositions and exhibits of relevant personnel

a) Identification of Direct Costs

Based on my review of the available information, I did not identify any direct costs for the Adult Probation Department, whether related either to prescription opioids or opioids generally. While a designated Opiate Unit was created in the Adult Probation Department in 2014, the unit and its personnel³⁷² are funded through the SMART grant provided by the Ohio Department of Rehabilitation and Correction.³⁷³

³⁷¹ See Court of Common Pleas 2016 Annual Report, pp. 27-32.

³⁷² Mr. Nelsen testified that eight new probation officers were hired in the 2017-2018 time frame, but they are funded entirely through state grant funds (see 30(b)(6) deposition of Brian Nelsen dated January 24, 2019, pp. 161:20-163:1, 165:11-16, and 175:1-14).

³⁷³ See Court of Common Pleas 2016 Annual Report, p. 34, and SUMMIT_000110952.

HIGHLY CONFIDENTIAL

b) Identification and Analysis of Incremental Costs

Based on my review of the available information, I did not identify any incremental costs for the Adult Probation Department between 2006 and 2018, whether related either to prescription opioids or opioids generally. My analysis of incremental costs is presented below.

Table V.D.9.1 is a summary of expenditures and key metrics of the Adult Probation Department for the period 2006 through 2018.

Table V.D.9.1: Summary of Expenditures and Key Metrics

Adult Probation (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Δ (06-18)	% Δ (06-18)	CAGR (06-18)
Salaries	\$2.6	\$2.5	\$2.7	\$2.7	\$2.5	\$2.5	\$2.5	\$2.6	\$2.7	\$2.7	\$2.6	\$2.6	\$2.5	(\$0.1)	-2.2%	-0.2%
Benefits	\$0.8	\$0.9	\$1.0	\$1.1	\$1.1	\$1.1	\$1.0	\$1.0	\$1.0	\$1.1	\$1.1	\$1.1	\$1.1	\$0.2	27.4%	2.0%
Other Non-Compensation Costs	\$0.3	\$0.2	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	(\$0.2)	-88.1%	-16.3%
Total Costs	\$3.7	\$3.6	\$3.9	\$3.9	\$3.6	\$3.6	\$3.5	\$3.6	\$3.7	\$3.8	\$3.7	\$3.7	\$3.6	(\$0.1)	-1.9%	-0.2%
Compensation Costs (Salaries + Benefits)	\$3.4	\$3.4	\$3.7	\$3.8	\$3.5	\$3.5	\$3.5	\$3.6	\$3.6	\$3.8	\$3.6	\$3.6	\$3.6	\$0.2	5.0%	0.4%
Compensation Costs as % of Total Costs	92.7%	93.4%	94.7%	99.5%	99.5%	99.1%	99.1%	98.7%	99.1%	98.3%	99.1%	99.1%	99.1%	6.5%		
FTEs	59	63	63	68	65	63	59	62	60	58	59	58	59	0	0.4%	0.0%
(\$ Actual)																
Average Salaries per FTE	\$44,089	\$39,967	\$43,062	\$40,430	\$38,319	\$39,557	\$41,835	\$41,774	\$44,167	\$46,752	\$43,624	\$44,627	\$42,944	(\$1,145)	-2.6%	-0.2%
Average Benefits per FTE	\$14,031	\$13,613	\$15,855	\$16,106	\$16,279	\$16,948	\$16,633	\$15,625	\$16,401	\$18,210	\$18,262	\$18,528	\$17,792	\$3,761	26.8%	2.0%
Average Compensation Costs per FTE	\$58,120	\$53,580	\$58,917	\$56,536	\$54,598	\$56,504	\$58,468	\$57,399	\$60,568	\$64,962	\$61,887	\$63,156	\$60,736	\$2,616	4.5%	0.4%
Supervision Caseload	4,830	4,274	4,230	4,553	4,210	3,908	4,040	4,103	4,042	4,281	4,273			(557)	-11.5%	-1.2%

Note 1: FTEs represents budgeted FTEs for 2006-2018.

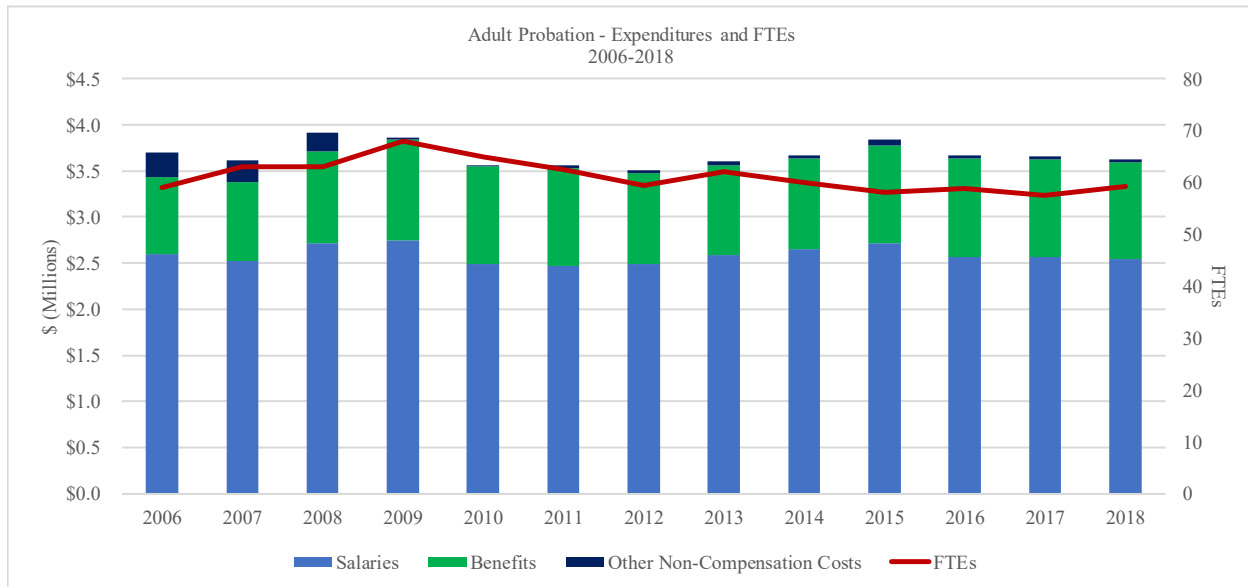
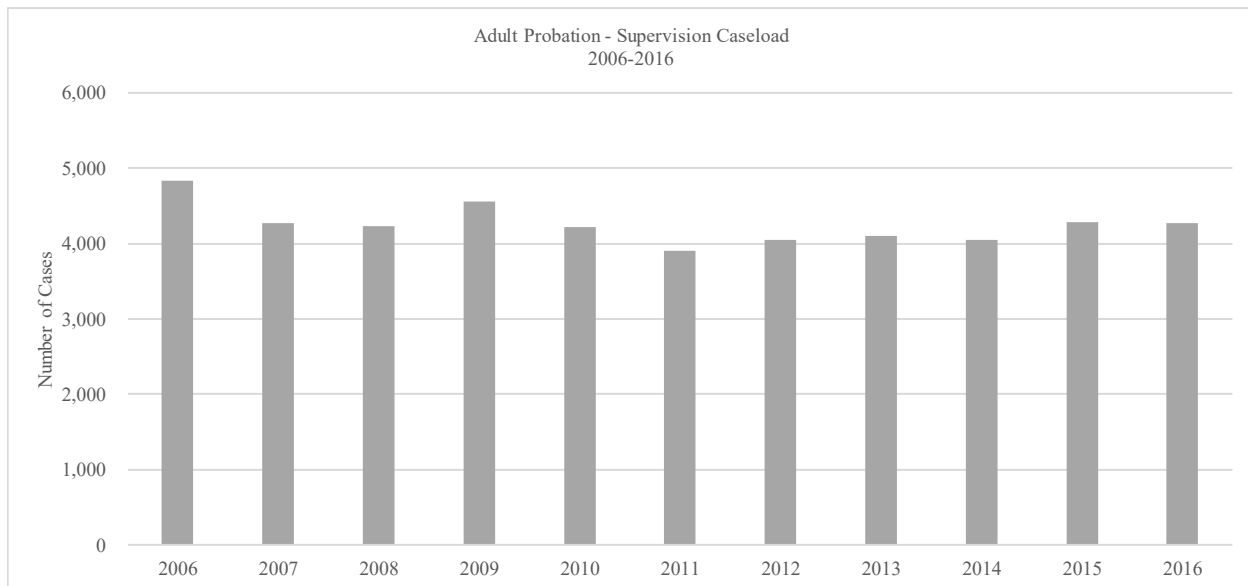
Note 2: Caseload data was not available for 2017-2018.

Note 3: Absolute change, percent change, and CAGR metrics for caseload are calculated based on the years data was available.

Sources: SUMMIT_002054603; Summit 2010, 2014, and 2018 Operating Budgets; Court of Common Pleas 2008, 2012, and 2016 Annual Reports.

These expenditures and key metrics are further exhibited in the graphs below:

HIGHLY CONFIDENTIAL

Graph V.D.9-1: Expenditures and Budgeted FTEs**Graph V.D.9-2: Supervision Caseload**

In my review of the expenditures and key metrics of the Adult Probation Department, I noted the following:

- Total compensation costs (salaries and benefits) fluctuated between 2006 and 2018, but increased overall by \$0.2 million (or 5.0%).

HIGHLY CONFIDENTIAL

- The CAGR of average compensation per FTE was 0.4%, which is far below the average inflation rate of state and local government employees' compensation of 2.4%.³⁷⁴
- There was no change in budgeted FTEs between 2006 and 2018.
- Total supervision caseload declined by 557 cases from 2006 to 2016.

Compensation Costs

Total compensation costs (salaries and benefits) increased by \$0.2 million (or 5.0%) from 2006 to 2018 and represent 97.8% of total expenditures during the period.³⁷⁵ Average salaries per FTE decreased from 2006 to 2018, while average benefits per FTE increased by \$3,761 over the same period. This increase in benefits is the result of higher healthcare plan costs³⁷⁶ per employee.

Additionally, budgeted FTEs remained flat at 59 from 2006 to 2018. Budgeted FTEs was at a high of 68 in 2009 prior to the financial crisis; however, in 2009, the department “downsized operations due to the fiscal climate within the County.”³⁷⁷ The last year the department was fully staffed was 2008 at 63 budgeted FTEs, which is only 4 employees higher than the budgeted FTEs in 2018.^{378,379} The budgeted FTEs also include administrative personnel, so I further examined the non-overhead FTEs (specifically, probation officers and supervisors). The budgeted FTEs for probation officers and supervisors increased by 8 FTEs from 2006 to 2018.³⁸⁰ This increase is supported by testimony of Mr. Nelsen and disclosures in the Court of Common Pleas Annual Reports regarding the increase in probation officers for the Opiate Unit.³⁸¹ However, as

³⁷⁴ See U.S. Bureau of Labor Statistics, Employment Cost Index (NAICS basis), 2007-2018 – Series I.D. CIU301000000000Q (Not Seasonally Adjusted).

³⁷⁵ See SUMMIT_002054603.

³⁷⁶ See SUMMIT_002054603.

³⁷⁷ See Court of Common Pleas 2009 Annual Report, p. 24.

³⁷⁸ See Court of Common Pleas 2008 Annual Report, p. 2.

³⁷⁹ The headcount information provided from the Banner accounting system also indicates that staffing levels peaked in 2008 (see SUMMIT_001952975).

³⁸⁰ See Summit 2010 Operating Budget, p. 315 and Summit 2018 Operating Budget, p. 376.

³⁸¹ See 30(b)(6) deposition of Brian Nelsen dated January 24, 2019, pp. 161:20-163:1, 165:11-16, and 175:1-14, and Court of Common Pleas 2016 Annual Report, p. 34.

HIGHLY CONFIDENTIAL

mentioned previously, these additional officers are funded entirely through the SMART grant and not county funds.

Based on the above and my review of the available information, I determined there were no incremental increases in compensation costs related to prescription opioids or opioids generally.

Other Non-Compensation Costs

Non-compensation costs include accounts such as telephone and office service charges. Non-compensation costs decreased by \$0.2 million between 2006 and 2018, and accounts for 2.2% of total costs. Based on the account descriptions and my review of the available information, it does not appear these accounts contain costs related to prescription opioids or opioids generally.

10. Medical Examiner

The Summit County Medical Examiner provides forensic death investigation services for Summit County and surrounding counties. The Medical Examiner also “assists local law enforcement agencies with forensic evaluation of deaths to aid in their investigations and subsequent prosecutions.”³⁸² Main services provided include scene investigations, performance of autopsies, and toxicologic examinations.³⁸³ The Medical Examiner is funded through the Summit County General Fund which is separately accounted for within the Banner accounting system.³⁸⁴

The Medical Examiner also operates the “Coroner’s Lab” which generates fees from the performance of out-of-county autopsies and toxicology services.³⁸⁵ The fees charged are intended to cover both overhead costs and time taken away from in-county activities.³⁸⁶ Summit County accounts for this Coroner’s Lab Fund separately from the General Fund. Based on my

³⁸² See Summit 2018 Operating Budget, p. 197.

³⁸³ See deposition of Lisa Kohler dated July 31, 2018, pp. 36:9-39:8.

³⁸⁴ Fund: General Fund (10003)/ Organization: Medical Examiner – General Office (3107). See SUMMIT_002054603.

³⁸⁵ See Summit 2018 Operating Budget, p. 200.

³⁸⁶ See deposition of Lisa Kohler dated July 31, 2018, p. 284:8-22.

HIGHLY CONFIDENTIAL

review of the accounting data, it appears the Coroner's Lab Fund was entirely funded through receipt of fees from 2006 through 2016.³⁸⁷ Summit County budgets also indicate that the Coroner's Lab Fund holds fees in reserve that can be utilized in subsequent years.³⁸⁸ For these reasons, my incremental expenditure analysis is focused on the expenditures funded through the General Fund.

The information I considered in my analysis of the Medical Examiner included, but was not limited to, the following:

- County budgets and CAFRs
- Accounting data from Summit County's Banner accounting system
- Medical Examiner annual reports
- Depositions and exhibits of relevant personnel
- Medical Examiner database
- Publicly available information

a) Identification of Direct Costs

Based on my review of the available information, I identified no direct costs related to prescription opioids for the Medical Examiner. As stated above, although this case involves claims related to harm caused by prescription opioids, I have also analyzed costs associated with opioid abuse generally in the event that the Court finds damages warranted beyond the harms caused solely by prescription opioid abuse. Thus, regarding opioids generally, I identified total direct costs of \$479,016 for the Medical Examiner.³⁸⁹ These direct costs related to the hiring of additional employees to assist with increased caseloads and cash transfers from the General Fund to the Coroner's Lab Fund. I found no evidence which indicates the hiring of these additional employees or cash transfers were specific to prescription opioids.

³⁸⁷ Account Title "Fees – Coroner." Fund: Coroner's Lab (28625) / Organization: Medical Examiner – Lab (3110). See SUMMIT_002054603.

³⁸⁸ See Summit 2018 Operating Budget, p. 59.

³⁸⁹ See Appendix 5 – Summit County Direct Costs.

HIGHLY CONFIDENTIAL

Based on testimony from Lisa Kohler (Chief Medical Examiner, Summit County) regarding the impact of the opioid crisis, Ms. Kohler testified the Medical Examiner hired four “locum Tenens doctors to assist with the caseload” costing \$83,250.^{390,391} Ms. Kohler could not recall when this hiring occurred, but believed it was after the county stopped performing out-of-county autopsies (around 2016).³⁹² Although I could not specifically identify these costs within the accounting data, the expense account for “Contract Services” increased slightly in 2016 and 2017 (see Table V.D.10-1 below). The cost for these locum Tenens doctors may be the cause for the increase.

In 2018, the Summit County operating budget included a transfer from the General Fund to the Coroner’s Lab Fund “to replenish reserve balances which have been depleted by the ME’s lack of time to handle out of county autopsies. The resulting drop in Lab Fund revenues is another byproduct of the opiate epidemic and the strain it has placed on County resources.”³⁹³ Based on my review of the accounting data, there were transfers of \$155,766 and \$240,000 to the Coroner’s Lab Fund in 2017 and 2018, respectively.³⁹⁴ I note that these transfers account for any specific direct costs paid for by the Coroner’s Lab Fund in 2017 and 2018.³⁹⁵

b) Identification and Analysis of Incremental Costs

Based on my review of the available information, I did not identify any incremental costs for the Medical Examiner between 2006 and 2018 in excess of my direct costs, whether related either to prescription opioids or opioids generally. My analysis of incremental costs, which focuses only on General Fund expenditures, is presented below.

³⁹⁰ See SUMMIT_000030830.

³⁹¹ Note that the Medical Examiner Annual Reports for 2014-2017 (at p. 18) indicate that “Drugs Most Commonly Found as Cause of Death” were Carfentanil and Fentanyl, which are (primarily) illicit opioids.

³⁹² See deposition of Lisa Kohler dated July 31, 2018, pp. 278:12-282:22 and “Narrative in Support of Opioid Crisis Costs – County of Summit Medical Examiner” (SUMMIT_000030830).

³⁹³ See Summit 2018 Operating Budget, p. 44, and deposition of Brian Nelsen dated January 24, 2019, p. 128:3-17.

³⁹⁴ Account Title “Transfers In.” Fund: Coroner’s Lab (28625) / Organization: Medical Examiner – Lab (3110). See SUMMIT_002054603.

³⁹⁵ Such costs include increases in body removal contracts, new lab equipment, and an additional forensic investigator. See deposition of Brian Nelsen dated January 24, 2019, pp. 131:2-13, 133:2-20, and 138:21-139:5, and Summit 2018 Operating Budget, p. 204.

HIGHLY CONFIDENTIAL

Table V.D.10-1 is a summary of expenditures and key metrics of the Medical Examiner for the period 2006 through 2018.

Table V.D.10-1: Summary of Expenditures and Key Metrics

Medical Examiner (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Δ (06-18)	% Δ (06-18)	CAGR (06-18)
Salaries	\$1.3	\$1.3	\$1.4	\$1.3	\$1.3	\$1.3	\$1.2	\$1.2	\$1.2	\$1.3	\$1.1	\$1.2	\$1.3	\$0.0	3.2%	0.3%
Benefits	\$0.4	\$0.4	\$0.4	\$0.5	\$0.5	\$0.4	\$0.4	\$0.4	\$0.4	\$0.5	\$0.4	\$0.5	\$0.5	\$0.1	32.8%	2.4%
Contract Services	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.1)	-100.0%	-100.0%
Other Non-Compensation Costs	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	-35.0%	-3.5%
Total Costs	\$1.7	\$1.8	\$1.9	\$1.8	\$1.8	\$1.7	\$1.7	\$1.7	\$1.7	\$1.8	\$1.6	\$1.8	\$1.8	\$0.1	5.2%	0.4%
Compensation Costs (Salaries + Benefits)	\$1.6	\$1.7	\$1.8	\$1.8	\$1.7	\$1.7	\$1.6	\$1.7	\$1.7	\$1.8	\$1.5	\$1.7	\$1.8	\$0.2	10.0%	0.8%
Compensation Costs as a % of Total Costs	94.4%	94.4%	96.6%	98.4%	99.0%	98.8%	99.0%	98.9%	98.8%	99.0%	96.9%	92.7%	98.6%	4.3%		
FTEs	21	21	22	22	19	19	19	19	19	19	18	17		(4)	-19.0%	-1.9%
(\$ Actual)																
Average Salaries per FTE	\$60,317	\$63,217	\$63,534	\$61,287	\$66,863	\$67,005	\$64,026	\$64,095	\$65,147	\$69,287	\$60,711	\$70,841		\$10,524	17.4%	1.5%
Average Benefits per FTE	\$18,093	\$18,756	\$20,178	\$21,181	\$24,784	\$23,585	\$22,553	\$23,250	\$23,283	\$25,775	\$24,828	\$28,618		\$10,524	58.2%	4.3%
Average Compensation Costs per FTE	\$78,411	\$81,973	\$83,712	\$82,468	\$91,647	\$90,590	\$86,579	\$87,345	\$88,430	\$95,062	\$85,539	\$99,459		\$21,048	26.8%	2.2%
In-County Cases	584	563	568	579	564	596	592	655	669	729	872	756		172	29.5%	2.4%
In-County Cases where COD = Overdose	92	72	80	76	94	84	112	107	156	213	345	278		186	202.2%	10.6%
Out-of-County Cases	71	84	71	120	143	167	139	181	187	212	71	0		(71)	-100.0%	-100.0%

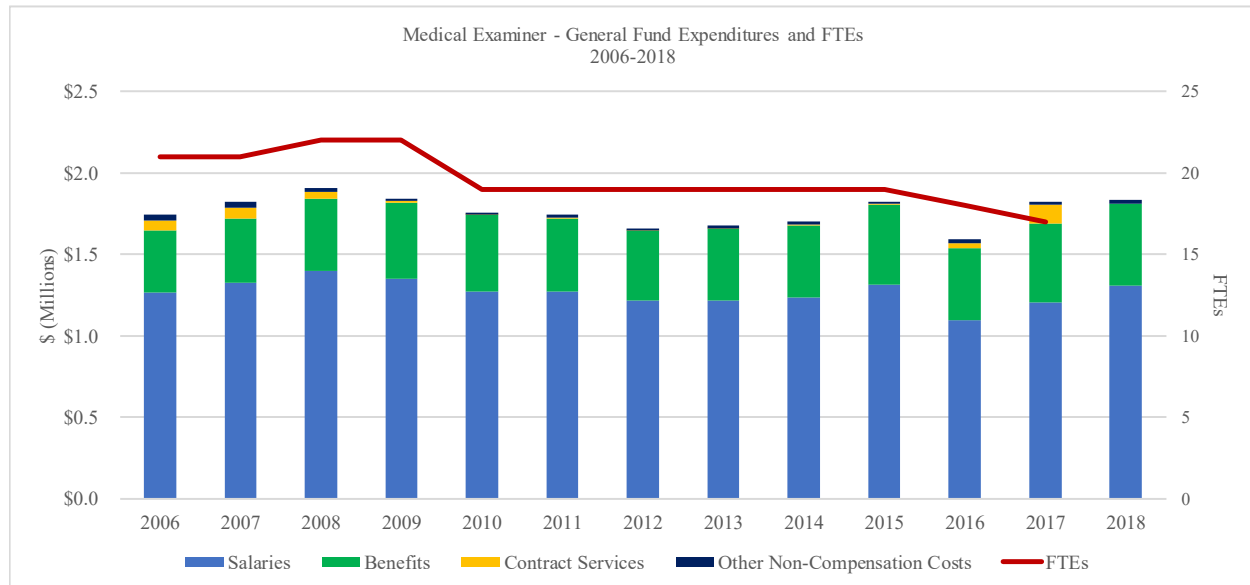
Note 1: Final FTE data was not available for 2018. In-county/out-of-county data was not available for 2018.

Note 2: Absolute change, percent change, and CAGR metrics for in-county/out-of-county cases are calculated based on the years data was available.

Sources: SUMMIT_002054603; SUMMIT_001952975; Medical Examiner 2006-2017 Annual Reports.

These expenditures and key metrics are further exhibited in the graph below:

HIGHLY CONFIDENTIAL

Graph V.D.10-1: Expenditures and FTEs

In my review of the expenditures and key metrics of the Medical Examiner, I noted the following:

- Total compensation costs (salaries and benefits) fluctuated between 2006 and 2018, but increased overall by \$0.2 million (or 10.0%).
- The CAGR of average compensation per FTE was 2.2% from 2006 to 2017, which is slightly below the average inflation rate of state and local government employees' compensation of 2.4%.³⁹⁶
- There was a net decrease of 4 FTEs (or 19.0%) between 2006 and 2017.
- In-county cases increased by 288 cases (or 49.3%) from 2006 to 2016 and decreased by 116 cases (or 13.3%) in 2017.³⁹⁷
- Out-of-county cases ceased by the end of 2016.

I further analyzed the number of cases handled by the Medical Examiner to understand how (and if) the caseload changed between 2006 and 2017. Graph V.D.10-2 provides the count

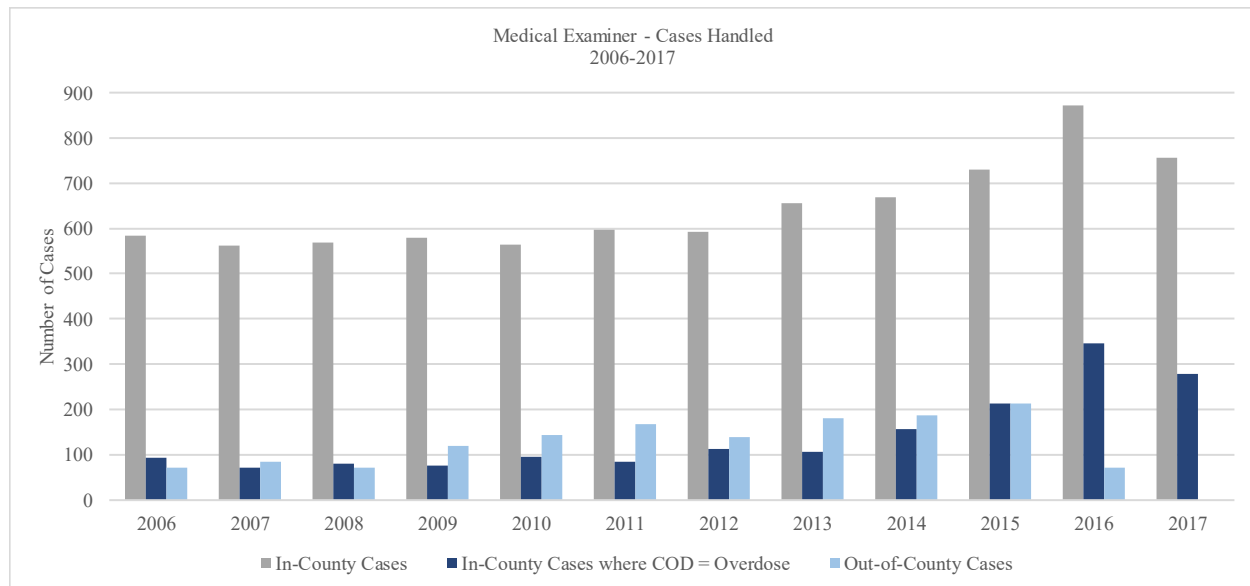
³⁹⁶ See U.S. Bureau of Labor Statistics, Employment Cost Index (NAICS basis), 2007-2017 – Series I.D. CIU3010000000000Q (Not Seasonally Adjusted).

³⁹⁷ Case counts do not directly correlate to the number of autopsies performed. The medical examiner may choose to not do a full autopsy depending on extenuating evidence and circumstances. See deposition of Lisa Kohler dated July 31, 2018, pp. 38:3-39:8.

HIGHLY CONFIDENTIAL

of cases handled by the Medical Examiner for 2006 through 2017 including where the cause of death was determined to be a drug and/or alcohol overdose.

Graph V.D.10-2: Medical Examiner Cases



Source: Medical Examiner 2006-2017 Annual Reports.

As depicted in the graph above, the number of cases remained relatively stable until 2013/2014 when an overall increase in cases is observed. This overall increase corresponds to an increase in overdose deaths, which peaked in 2016.³⁹⁸ The majority of the overdoses in 2016 were linked to illicit drugs, including carfentanil.³⁹⁹ As a result of the increase in overall cases, the medical examiner's office stopped taking out-of-county cases sometime in 2016 to better address in-county issues.⁴⁰⁰

³⁹⁸ This is consistent with other sources that report a decrease in drug overdoses by 2018 and note the "waning end of the opiate crisis." See "Drug Deaths Plunge In Summit; County Task Force Says Number of Overdoses Fell in 2018." Akron Beacon Journal, January 12, 2019.

³⁹⁹ See Summit County Medical Examiner Annual Reports, Toxicology Results for "Drugs Most Commonly Found as the Cause of Death."

⁴⁰⁰ See deposition of Lisa Kohler dated July 31, 2018, p. 85:10-20 and Exhibit 12.

HIGHLY CONFIDENTIAL

Compensation Costs

Total compensation costs (salaries and benefits) increased by \$0.2 million (or 10.0%) from 2006 to 2018 and represent 97.3% of total expenditures during the period.⁴⁰¹ Although caseloads increased, it does not appear the Medical Examiner experienced any additional hires or increases in compensation costs as a result of the county's efforts related to opioid abuse. Compensation costs remained relatively stable throughout the time period, and in the years with the highest caseloads (2015 and 2016), the FTEs decreased from 19 to 18 employees. Presumably the extra caseloads were handled by the "locum Tenens doctors to assist with caseload" included in my direct costs above.

Based on the above and my review of the available information, I determined there were no incremental increases in compensation costs related to prescription opioids or opioids generally.

Other Non-Compensation Costs

Non-compensation costs include "Motor Vehicle Fuel/Repair" and other non-compensation related accounts, such as supplies, telephone, and office service charges. Non-compensation costs decreased by 35% between 2006 and 2018, and comprise approximately 1% of total costs. Based on the account descriptions and my review of the available information, it does not appear these accounts contain costs related to prescription opioids or opioids generally.

E. Calculation of Maximum Past Opioid Costs

My calculation of maximum past opioid costs represents the sum of my identified direct costs and incremental costs of the "affected divisions" (and for direct costs, where the division is unknown). Tables V.E-1 and V.E-2 are a summary of my maximum past opioid costs by county and division.

⁴⁰¹ See SUMMIT_002054603.

HIGHLY CONFIDENTIAL

Table V.E-1: Summary of Cuyahoga County Maximum Past Opioid Costs

Division	Maximum Direct Costs		Maximum Incremental Costs		Maximum Total Costs that Could be Related to Prescription and General Opioid Abuse
	Prescription	General	Prescription	General	
ADAMHS Board	\$ -	\$ 2,235,174	\$ -	\$ 1,080,231	\$ 3,315,405
Children and Family Services					
Office of the Prosecutor	-	100,000	-	-	100,000
Office of the Public Defender	-	-	-	-	-
Court of Common Pleas	-	3,027,542	-	-	3,027,542
Juvenile Court	-	317,793	-	122,760	440,553
Sheriff's Department	35,191	-	-	-	35,191
County Jail	-	-	-	-	-
Medical Examiner	-	2,636,996	-	-	2,636,996
Division Unknown	5,485	14,047	-	N/A	19,533
	\$ 40,676	\$ 8,331,553	\$ -	\$ 1,202,991	\$ 9,575,220

Note 1: Due to the unavailability of certain Cuyahoga County financial records for 2018, my calculation of past costs for Cuyahoga County is limited, in part, to the period 2006 to 2017.

Note 2: At this time I have not analyzed Children and Family Services. Pursuant to the Court's recent rulings, I will supplement my report to include an analysis of Children and Family Services upon receipt of the underlying case files from Plaintiffs.

Table V.E-2: Summary of Summit County Maximum Past Opioid Costs

Division	Maximum Direct Costs		Maximum Incremental Costs		Maximum Total Costs that Could be Related to Prescription and General Opioid Abuse
	Prescription	General	Prescription	General	
ADM Board	\$ -	\$ 7,078,148	\$ -	\$ -	\$ 7,078,148
Children Services					
Prosecutor's Office	-	-	-	-	-
Court of Common Pleas	-	-	-	467,259	467,259
Juvenile Court	-	-	-	1,388,319	1,388,319
Sheriff's Office	166,667	281,034	-	-	447,701
County Jail	-	237,990	-	-	237,990
Alternative Corrections	-	-	-	-	-
Adult Probation Department	-	-	-	-	-
Medical Examiner	-	479,016	-	-	479,016
	\$ 166,667	\$ 8,076,188	\$ -	\$ 1,855,578	\$ 10,098,433

Note 1: My calculation of maximum past costs for Summit County are for the period 2006 to 2018.

Note 2: At this time I have not analyzed Children Services. Pursuant to the Court's recent rulings, I will supplement my report to include an analysis of Children Services upon receipt of the underlying case files from Plaintiffs.

HIGHLY CONFIDENTIAL

My total maximum past opioid costs for Cuyahoga County, not including Children and Family Services, are \$9,575,220.⁴⁰² Of these total costs, I determined \$40,676 related to prescription opioids.^{403,404}

My total maximum past opioid costs for Summit County, not including Children Services, are \$10,098,433.⁴⁰⁵ Of these total costs, I determined \$166,667 related to prescription opioids.⁴⁰⁶

VI. INSUFFICIENCIES OF THE PLAINTIFFS' EXPERTS' METHODOLOGIES AND OPINIONS

I have also been asked to review the reports filed by McGuire and Cutler and to comment on their calculations of damages. It is my opinion that McGuire's damages opinions are flawed and should be rejected.

Overview of McGuire's Calculation of Financial Damages

McGuire theorizes that the appropriate framework for calculating "damages"⁴⁰⁷ is based on the principle of opportunity cost.⁴⁰⁸ McGuire readily admits that a change in demand for government services does not necessarily result in increased costs or additional spending.⁴⁰⁹

⁴⁰² At this time I have not analyzed Children and Family Services. Pursuant to the Court's recent rulings, I will supplement my report to include an analysis of Children and Family Services upon receipt of the underlying case files from Plaintiffs. See Order re Objections to Discovery Ruling No. 17 from J. Polster dated April 10, 2019 (Dkt. No. 1535) and Order Granting an Extension to File a Single, Supplemental Report on Children's Services' Damages from SM Cohen dated May 7, 2019.

⁴⁰³ Due to the unavailability of certain Cuyahoga County financial records for 2018, my calculation of past opioid costs for Cuyahoga County is limited, in part, to the period 2006 to 2017.

⁴⁰⁴ Appendix 4 – Cuyahoga County Direct Costs.

⁴⁰⁵ At this time I have not analyzed Children Services. Pursuant to the Court's recent rulings, I will supplement my report to include an analysis of Children Services upon receipt of the underlying case files from Plaintiffs. See Order re Objections to Discovery Ruling No. 17 from J. Polster dated April 10, 2019 (Dkt. No. 1535) and Order Granting an Extension to File a Single, Supplemental Report on Children's Services' Damages from SM Cohen dated May 7, 2019.

⁴⁰⁶ See Appendix 5 – Summit County Direct Costs.

⁴⁰⁷ McGuire characterizes his calculations as damages (for example, see McGuire Report, para. 11), and he states that he has been instructed by counsel to refer to his calculations as damages (see deposition of Thomas McGuire dated April 30, 2019, p. 590:14-19).

⁴⁰⁸ See McGuire Report, para. 26-27 and footnote 26.

⁴⁰⁹ See McGuire Report, para. 25.

HIGHLY CONFIDENTIAL

Rather, he theorizes that counties suffered opportunity cost damages as a result of responding to opioid-related issues. He posits that if the county spent funds on opioid-related issues, including for internal compensation costs, then the county was unable to spend funds on other issues.⁴¹⁰ McGuire frames the counties' inability to spend funds on other issues as "lost opportunities" and, therefore, treats all funds spent by the counties on opioid-related issues as damages even if the county's financial condition remained unchanged.

McGuire quantifies damages in the following manner:^{411,412}

Damages = (1) Total Costs Incurred in Bellwether Divisions Affected by Opioid Crisis
 × (2) Share of Total Costs in Relevant Divisions That Address Harms
 × (3) Share of Harm Attributable to Defendants' Misconduct

It should be noted that (3) above is calculated by Cutler according to the following formula:⁴¹³

(3) Share of Harms Attributable to Defendants' Misconduct
 = (4) Share of Harms Attributable to Opioids ("Opioid-Related %")
 × (5) Share of Opioid Harms Attributable to Opioid Shipments
 × (6) Share of Opioid Shipments Due to Defendants' Misconduct

An example of how the McGuire and Cutler reports are linked is shown below:^{414, 415}

⁴¹⁰ See McGuire Report, para. 26.

⁴¹¹ See McGuire Report, para. 16 and 72.

⁴¹² Note that McGuire and Cutler do not assign numbers to calculation steps within their individual reports (i.e., numbers 1-6 above). I have included numbers here for illustrative purposes.

⁴¹³ See McGuire Report, footnote 15 and Cutler Report, para. 23.

⁴¹⁴ McGuire calculations are based on the example presented in Table IV.11 of the McGuire Report.

⁴¹⁵ Cutler percentages sourced from Table III.4 and Table III.13 of the Cutler Report.

HIGHLY CONFIDENTIAL

Example: Damages to Cuyahoga County Sheriff's Department			2017
McGuire	(1) Total Costs Incurred by Cuyahoga Sheriff		<i>(\$ in millions)</i>
	Total Compensation Costs	[a]	\$32.9
	Affected Non-Compensation Costs	[b]	\$0.8
	(2) Share of Costs in Relevant Divisions that Address Harms		
	Overhead Adjustment	[c]	93.2%
	Crime-Focused Percentage	[d]	68.7%
	Offset to Affected Costs	[e]	\$0.0
	(3) Share of Harms Attributable to Defendants' Misconduct <i>(taken from Cutler Report)</i>		
Cutler		[f]	5.2%
	Damages to Cuyahoga Sheriff	$([a]*[c]*[d]+[b]-[e])*[f]$	\$1.1
	(4) Share of Harm Attributable to Opioids ("Opioid-Related %")	[g]	11.0%
	(5/6) Share of Harm (based on Regression)	[h]	47.7%
	(3) Share of Harms Attributable to Defendants' Misconduct	$[f]=[g]*[h]$	5.2%

McGuire first identifies 19 “affected divisions” in the Bellwether counties that may have incurred costs in responding to opioid abuse.⁴¹⁶ His work is then primarily focused on determining what he refers to as the “affected costs,” which are determined by steps (1) and (2) in the first formula above.⁴¹⁷ These are the costs that McGuire claims are “variable” and potentially affected by opioid abuse related issues. Again, when he identifies these costs as “affected” or “variable,” he does not mean that they actually increased or decreased because of opioid abuse, but rather that they were “diverted.”⁴¹⁸ In other words, he does not demonstrate a change in expenses or financial condition “but for” Plaintiffs’ allegations. The total “affected” costs incurred in “affected divisions” are then multiplied by the “[s]hare of total costs in relevant divisions that address harms.”⁴¹⁹ This step attempts to refine the total costs in the “affected divisions” by removing overhead and other costs in an attempt to identify the portion of costs that might actually have been affected. These “affected costs” are then multiplied by item (3) in

⁴¹⁶ See McGuire Report, Table IV.1.

⁴¹⁷ See McGuire Report, Section IV (“Identifying Affected Costs Within Impacted Government Divisions”).

⁴¹⁸ See McGuire Report, Section II.B.3 (“The Value of Diverted Resources Understates Opioid-Related Costs Faced by Municipalities”) and para. 26-27.

⁴¹⁹ See McGuire Report, para. 16 and 72.

HIGHLY CONFIDENTIAL

the formula above, the “Share of Harm Attributable to Defendants’ Misconduct.” The formula for this element is referenced above and will be further discussed later in this report.

Further, while McGuire struggled to recall the specifics of what he did, how the numbers ended up in his report, who performed the work, who he talked to, or what county employees were consulted, the one thing that is clear regarding his work is that all he has done is identify the costs that may have been affected.⁴²⁰ He relies entirely and without analysis or vetting on Cutler (and Rosenthal) for the rest of the analysis.⁴²¹ Outside of determining the starting point for costs, he is merely a calculator for the rest of the exercise. Because he is so dependent on Cutler for the substantial portions of the analysis, I will address the work of both in subsequent sections.⁴²²

As previously stated, it is my opinion that McGuire’s damages opinions are flawed and should be rejected. The most egregious deficiencies fit into the following categories:

1. McGuire’s methodology is illogical, relies on unfounded and untested theories, misapplies the concept of opportunity cost, and relies on financial terms and concepts in a manner that is not commonly accepted in the profession.
2. McGuire’s determination of “affected costs” is speculative, unreliable, and deficient.

⁴²⁰ See deposition of Thomas McGuire dated April 23, 2019.

⁴²¹ See deposition of Thomas McGuire dated April 23, 2019, pp. 140:23-142:24, pp. 144:16-146:15, and p. 205:14-19.

⁴²² In addition to the damages calculations addressed in this report, McGuire also includes additional calculations in the appendices to his report that are labeled “Damages from Distributors’ Misconduct” and “Damages from All Shipments.” He claims that he relies on inputs from Cutler for these calculations. He does not present these as damages, and when asked about them at his deposition, he did not seem to know their intended purpose. He mistakenly guesses that some were for his Public Nuisance report. Cutler states that he was not involved in determining or assessing the underlying data that was used to calculate the inputs that were provided to McGuire. Cutler claims that this data was simply given to him by counsel, and that it was estimated by McCann and Rosenthal. However, I have not seen the underlying data sets from McCann, and understand that counsel for Defendants has not seen them either. As the relevance and validity of the underlying figures from McCann and Rosenthal are beyond the scope of my report and McGuire does not present his calculations relying on these figures as damages, I am not addressing them further in this report. See deposition of Thomas McGuire dated April 30, 2019, pp. 594:24-606:16 and deposition of David Cutler dated April 27, 2019, pp. 594:11-595:3 and 634:8-637:11.

HIGHLY CONFIDENTIAL

3. McGuire's conclusions are entirely dependent on the work of Cutler, who bases his work on inappropriate, deficient, and insufficient data, fails to properly analyze and vet his underlying data sources, and ignores significant amounts of relevant data.

A. Methodological and Foundation Errors

As previously described, McGuire utilizes opportunity cost as his methodology for calculating financial damages. To understand the flaws in McGuire's methodology, it is helpful to begin with a definition of opportunity cost:

"Opportunity costs represent the benefits foregone because one course of action is chosen over another"⁴²³... and have been described as expressing "the basic relationship between scarcity and choice."⁴²⁴

"A benefit, profit, or value of something that must be given up to acquire or achieve something else."⁴²⁵

First, opportunity cost, as defined above and utilized by McGuire, cannot be used to determine financial damages suffered by the Cuyahoga County and Summit County governments. Rather, to the extent damages have been suffered at all, the opportunity costs identified by McGuire only represent ostensible damages and harm to the individual citizens in those counties. A key concept in the above definitions is that of the "benefit" or "value" that is lost. Not only is it crucial to determine that value has been lost, but also to identify who has lost that value. To the extent McGuire has identified value lost by an entity other than the Plaintiffs, his opinions must be rejected.

An example of opportunity cost and "diversion" of resources cited by McGuire illustrates this deficiency. If the Summit County ADM division treats an opioid abuse patient instead of treating an alcohol patient, neither the service provider nor the County is deprived of any benefit. The county spends the same amount of time and same amount of resources providing treatment

⁴²³ See Barfield, Raiborn, and Kinney. Cost Accounting Traditions and Innovations. 2nd Edition, 1994, p. 605.

⁴²⁴ See James M. Buchanan (2008). "Opportunity Cost." The New Palgrave Dictionary of Economics Online (Second ed.).

⁴²⁵ See <http://www.businessdictionary.com/definition/opportunity-cost.html>.

HIGHLY CONFIDENTIAL

as it otherwise would. The entity that lost the benefit and was therefore harmed or damaged is the alcohol patient. By calculating damages in this fashion, McGuire is substituting theoretical damages to individual citizens for damages to the county.

It is widely accepted that measuring damages calls for reconstructing the financial results that “would-have-been” achieved had the alleged improper conduct not occurred--in other words, determine what would have been, “but for” the alleged improper conduct. Then, the would-have-been results are compared to the actual results so that damages stemming from the alleged improper conduct can be identified and measured.⁴²⁶ Because McGuire realizes that this widely accepted approach would result in significantly lower damages, he conflates damages to citizens with damages to the county.

Further examples from the McGuire Report illustrate his recurring conflation of individual and county damages. If, as McGuire posits, opioid abuse-related activities occupy 20% of Children and Family Services staff time, resulting in less time for other activities and a decrease in quality of service, the provider of service is unaffected. It is those who received the service that may suffer harm or incur damages. Similarly, if police spend less time on patrolling and traffic enforcement because of time spent responding to opioid abuse-related calls, the police department is unaffected. The police officers spend the same amount of time and the municipality spends the same amount of resources as it otherwise would. The citizens who then don’t benefit from the patrolling and traffic enforcement are potentially harmed, but the police department is not. It is likely that the Court recognized this fact when it gave guidance that damages could be measured by incremental increased costs above the norm, not merely from substituted costs or the ordinary provision of service.^{427,428}

⁴²⁶ See Weil, R., Lentz, D. and Evans, E. *Litigation Services Handbook*. 6th Edition, 2017, Section 4.4 “Damages Theory.”

⁴²⁷ See Opinion and Order dated December 19, 2018 in the matter *The County of Summit, Ohio et al. vs. Purdue Pharma L.P. et al.*

⁴²⁸ McGuire also submitted a separate report “Regarding Public Nuisance.” That report also purports to calculate costs borne by citizens and does not attempt to calculate costs borne by the counties themselves (see deposition of Thomas McGuire dated April 30, 2019, pp. 669:8-670:5 and McGuire Report Regarding Public Nuisance, para. 13). Moreover, that report does not attempt to link these costs to Defendants’ misconduct (see McGuire Report Regarding Public Nuisance, para. 42 and footnote 57).

HIGHLY CONFIDENTIAL

A second major deficiency in McGuire's methodology is his assumption that governments are rational, profit maximizing entities that behave like consumers or businesses.⁴²⁹ McGuire states that local governments face a constrained optimization problem: how can they optimally allocate their limited resources to "maximize their objectives."⁴³⁰ He then claims that Summit and Cuyahoga Counties utilize standard private sector cost / benefit analyses when they allocate resources.⁴³¹ He bases this assertion on a handful of quotes plucked from a few textbooks.⁴³² However, a further review of those texts reveal that this is not "well accepted" even in the texts McGuire claims as his primary sources.

As discussed below, politicians and bureaucrats are guided by objectives other than profit maximization, which result in governmental inefficiencies that break the cost / benefit link required by private sector decision makers. As a result, the texts McGuire cites, which he claims support his economic underpinnings, actually refute his economic underpinnings.

For example, John Mikesell, in *Fiscal Administration* (one of McGuire's cited texts) wrote:

Public finance is not the same as business finance, although the two are related and use many of the same tools. One difference is in ultimate objectives. Financial management in business seeks to increase the value of the firm to its owners by judicious allocation and control of its resources. Public financial management uses similar analytic, technical, and managerial tools to allocate and control finances, but governments differ from private businesses in terms of resource constraints, ownership and objectives. Four important differences exist: governments may tax to enlarge their resources; "ownership" of the government is not clear because many stakeholders – including at least taxpayers, those benefiting from particular government services, and those providing government services – share a legitimate interest in government decisions; the value of government services is neither easy to quantify nor reflected in a single measure (like the sales or profits of a business enterprise); and governments are dealing with the public trust and reputations of all the citizenry... The fundamental idea that the

⁴²⁹ See McGuire Report, para. 22 and footnote 21.

⁴³⁰ See McGuire Report, para. 22.

⁴³¹ See McGuire Report, para. 22.

⁴³² See McGuire Report, footnotes 21-23.

HIGHLY CONFIDENTIAL

provider of a valued product can capture a portion of that value – a link between creating value and receiving revenue from that value – is broken for government operations. ***Government finance, for this reason, is fundamentally different from business finance.***⁴³³ [emphasis added]

Mr. Mikesell goes on to conclude that:

Logically, budget allocation is simple: allocate funds among government programs until an additional dollar moved to any program yields an additional return to society equal to the return lost from the program from which that dollar was taken. [i.e. marginal cost analyses] That is the public sector equivalent of the familiar resource allocation rule for profitability in business operations. But the private decision maker maximizes a clear and measurable objective – profit – and measuring profitable return from several lines of operation is feasible because the standard is clearly calibrated, uniform, and measured with a common denominator (profit). Public section operations usually (1) have multiple objectives (e.g., subsidized school lunches both feed children and support the income of farmers), (2) have conflicting objectives (e.g., the reservoir needs to be nearly empty to provide flood control and to be nearly full to allow water skiing), and (3) have no standard measure or common yardstick to compare the return from various programs (e.g., the gains from cleaner rivers are not measured in the same units as are reduced traffic fatalities). Furthermore, the beneficiaries of the various programs often are not the same people, so choices among programs cause there to be distributional winners and losers, in violation of the Pareto criterion. In addition, taxpayers paying for the programs may well not be the people benefiting from the public services being provided, complicating the decision-making process even more, as does the fact that program beneficiaries are not evenly distributed among the electoral districts of the lawmakers deciding what programs will receive appropriations. Hence, the simple public program rule, so easy to define, may only be a glimmer in the foggy politics of budget decisions. Lawmakers working in the public interest face tough choices, well beyond the complexities a business executive will confront.⁴³⁴

⁴³³ See Mikesell, John L. Fiscal Administration 10th Edition, 2018, pp. 2-3. (footnote omitted).

⁴³⁴ See Mikesell, John L. Fiscal Administration 10th Edition, 2018, p. 259 (footnote omitted).

HIGHLY CONFIDENTIAL

Because these multiple and mixed objectives cannot be weighed scientifically and because achievement of objectives cannot be easily measured across programs, the budget process is political, involving both pure bargaining or political strategies and scientific analysis.⁴³⁵

And legislators at all levels of government seek to bring government business to their own constituencies, often with minimal regard to whether that is the most efficient way of delivering services to the public as a whole.⁴³⁶

Additional quotes from McGuire's cited texts that undermine his assumptions include:

...a bureaucrat's salary is typically unrelated to efficiency.... The goal of the bureaucrat is, therefore, to maximize the size of the agency he controls....⁴³⁷

[Governments] often ignore or fudge orders to perform cost-benefit analyses.... When cost-benefit analyses are done, the quality is often poor.... A further problem is that the whole exercise can be subverted when inherently difficult-to-measure considerations are required to be brought into play.⁴³⁸

[In moving money between activities,] one should never underestimate the capacity of politicians to do the wrong thing.⁴³⁹

...irrational choices will be made [by governments], resources will be misallocated, and scams will be implemented. Sound governance processes and institutions can improve the odds of reasonable choices, but that's all.⁴⁴⁰

⁴³⁵ See Mikesell, John L. *Fiscal Administration* 10th Edition, 2018, p. 56.

⁴³⁶ See Mikesell, John L. *Fiscal Administration* 10th Edition, 2018, p. 57.

⁴³⁷ See Gruber, Jonathan. *Public Finance and Public Policy*, 5th Edition, 2016, p. 265.

⁴³⁸ See Rosen, Harvey S. and Gayer, Ted. *Public Finance*, 10th Edition, 2014, p. 169.

⁴³⁹ See Mikesell, John L. *Fiscal Administration* 10th Edition, 2018, p. 45.

⁴⁴⁰ See Mikesell, John L. *Fiscal Administration* 10th Edition, 2018, p. 34.

HIGHLY CONFIDENTIAL

Third, another important element in the concept of opportunity cost is that of constraint or scarcity. McGuire himself notes that this is a foundational element and refers to it when he discusses diversion of services.⁴⁴¹ He explains that because counties are constrained, they must divert services rather than incur incremental costs, and so he uses opportunity costs to measure these diversions.⁴⁴² By his reasoning, this implies that every time the county spends an hour or resources to respond to opioid addiction, there is a corresponding decrease in time or resources spent on other drugs or issues. In other words, spending time or resources on opioid abuse related issues prevents the county from performing other services.

Although this is a fundamental premise in McGuire's damages theory, he does nothing to confirm that this actually occurred in Cuyahoga or Summit Counties. He is unable to identify a single service that was not performed due to opioids. He went to great lengths in his deposition to explain that it doesn't matter what service or expense was foregone,⁴⁴³ but more importantly he never demonstrates whether any service or expense was foregone.

In fact, the Plaintiffs' own financial data, which McGuire ignored, suggests that the affected divisions did not divert services to address opioid issues. Both Cuyahoga and Summit Counties significantly underspent their budgets in the affected divisions identified by McGuire. A review of the Cuyahoga County CAFRs reveals that between 2012 and 2017, actual expenditures in the affected divisions totaled \$101 million less than had been budgeted and approved.⁴⁴⁴ In Summit County, the affected divisions spent \$37 million less between 2012 and 2017 than had been budgeted.⁴⁴⁵ Furthermore, several of the divisions have maintained enormous fund balances far in excess of what is needed from an operational perspective. For example, the Summit County ADM division carried a fund balance (or cash balance) of more than \$45 million at the end of 2017.⁴⁴⁶ This amount represents nearly an entire year's worth of expenditures for the department. Summit County ADM operated on a fund balance of less than

⁴⁴¹ See McGuire Report, para. 22.

⁴⁴² See McGuire Report, para. 23-24.

⁴⁴³ See deposition of Thomas McGuire dated April 30, 2019, pp. 517:12-521:1.

⁴⁴⁴ See Appendix 6 – Comparison Between Budgeted and Actual Expenditures, Cuyahoga County.

⁴⁴⁵ See Appendix 7 – Comparison Between Budgeted and Actual Expenditures, Summit County.

⁴⁴⁶ See SUMMIT_001103655.

HIGHLY CONFIDENTIAL

\$18 million in 2009 when expenditures were significantly higher than in 2017, but the balance has steadily increased year after year due to the division spending less than the revenue it has received.⁴⁴⁷ Summit County Children Services has carried a fund balance in excess of \$30 million for the vast majority of the alleged damage period, representing as much as 75% of annual expenditures.⁴⁴⁸

The foregoing suggests that the counties did not experience constraint-driven diversion of resources. Ample resources existed in several of the divisions to provide significant levels of additional services. To the extent the counties chose not to provide additional services, it was not due to constraints caused by addressing opioid abuse related issues.

Fourth, McGuire's calculations are inconsistent with the manner in which damages have been described in this case. The December 19, 2018 Opinion and Order issued in this case states the following:⁴⁴⁹

The Court thus concludes that while Cities and Counties cannot recover ordinary costs of services provided in their capacity as a sovereign, Cities and Counties should be able to recover costs greatly in excess of the norm....

Certainly, some of Plaintiffs' alleged costs are costs associated with the ordinary provision of services to their constituents in their capacity as sovereigns. . . . These costs cannot be recovered unless Plaintiffs can prove they go beyond the ordinary provision of those services.

Clearly, McGuire's methodology does not identify costs greatly in excess of the norm. He does not attempt to establish what a normal level of cost would have been "but for" the allegations and does not attempt to identify or calculate incremental increases in cost above that

⁴⁴⁷ See SUMMIT_001103655.

⁴⁴⁸ See SUMMIT_002057610, SUMMIT_002057852, and SUMMIT_002058218.

⁴⁴⁹ See Opinion and Order dated December 19, 2018 (pp. 19-20) in the matter The County of Summit, Ohio et al. vs. Purdue Pharma L.P. et al.

HIGHLY CONFIDENTIAL

norm. Instead, he is merely calculating what portion of the “ordinary provision” of services was spent on opioid-related issues.

Finally, when McGuire chooses the affected costs that he then multiplies by the factors that Cutler determines, he bases his selection on a determination of “variable” and “fixed” costs.⁴⁵⁰ These are standard accounting terms. However, his application of these terms is inconsistent with any definition of variable and fixed costs in standard accounting literature and is inconsistent with how these terms are used in the profession.

Variable costs are costs that vary in total in direct proportion to changes in activity. Cost of materials and hourly labor are typical examples of variable costs. Fixed costs are costs that are not immediately affected by changes in activity. Salaries and rent are common examples of fixed costs.⁴⁵¹ However, McGuire’s identification of variable costs is entirely inconsistent with these common definitions and the way they are applied in practice. In fact, 70% of his total “variable costs” are salaries, which are almost universally regarded as fixed expenses.^{452, 453} McGuire also describes the costs as “affected costs” despite the fact that they remain the same regardless of the services rendered. McGuire’s manufactured definition of variable cost is necessary to prop up his damages model, which does not identify increases in costs above the norm but rather simply identifies static costs that are part of the ordinary provision of service and unchanged by varying service demands.

B. Unreliable Determination of “Affected Cost”

The second category of fatal error relates to McGuire’s calculation of “affected costs.” As previously discussed, he quantifies opportunity costs related to opioid abuse in the following manner. The “affected costs” are calculated in steps (1) and (2) below:

⁴⁵⁰ See McGuire Report, para. 58-61.

⁴⁵¹ See Horngren, Sundem, and Stratton. *Introduction to Management Accounting*. 12th Edition, 2002, pp.43-47; Horngren, Harrison, and Robinson. *Principles of Financial & Management Accounting*. 1994, pp. 810-811; Barfield, Raiborn, and Kinney. *Cost Accounting Traditions and Innovations*. 2nd Edition, 1994, pp. 37-40.

⁴⁵² See Horngren, Sundem, and Stratton. *Introduction to Management Accounting*. 12th Edition, 2002, pp.43-47; Horngren, Harrison, and Robinson. *Principles of Financial & Management Accounting*. 1994, pp. 810-811; Barfield, Raiborn, and Kinney. *Cost Accounting Traditions and Innovations*. 2nd Edition, 1994, pp. 37-40.

⁴⁵³ See Appendix 8 – McGuire’s Total Affected Costs, Cuyahoga and Summit Counties.

HIGHLY CONFIDENTIAL

Example: Damages to Cuyahoga County Sheriff's Department			2017
McGuire	(1) Total Costs Incurred by Cuyahoga Sheriff		<i>(\$ in millions)</i>
	Total Compensation Costs	[a]	\$32.9
	Affected Non-Compensation Costs	[b]	\$0.8
	(2) Share of Costs in Relevant Divisions that Address Harms		
	Overhead Adjustment	[c]	93.2%
	Crime-Focused Percentage	[d]	68.7%
	Offset to Affected Costs	[e]	\$0.0
	(3) Share of Harms Attributable to Defendants' Misconduct <i>(taken from Cutler Report)</i>		
Cutler		[f]	5.2%
	Damages to Cuyahoga Sheriff	$([a]*[c]*[d]+[b]-[e])*[f]$	\$1.1
	(4) Share of Harm Attributable to Opioids ("Opioid-Related %")	[g]	11.0%
	(5/6) Share of Harm (based on Regression)	[h]	47.7%
	(3) Share of Harms Attributable to Defendants' Misconduct	$[f]=[g]*[h]$	5.2%

At least three of the elements of McGuire's calculation in steps (1) and (2) of reaching "affected costs" present significant problems:

- [b] Affected Non-Compensation Costs: identifies certain non-compensation expense accounts that he believes reflect "costs that were incurred in the provision of services that were affected by the opioid crisis."⁴⁵⁴
- [c] Overhead Adjustment Factor: reduces identified compensation costs by "excluding estimates of costs related to staff in overhead or support activities."⁴⁵⁵ McGuire performs this adjustment by reviewing job titles within employee headcount data or payroll expenditures and picking out employees that appear to relate to "overhead or support activities...that were unlikely to have been affected by the crisis."⁴⁵⁶

⁴⁵⁴ See McGuire Report, para. 61.

⁴⁵⁵ See McGuire Report, para. 60.

⁴⁵⁶ See McGuire Report, para. 60.

HIGHLY CONFIDENTIAL

- [e] Offset to Affected Costs: deducts any “revenue received from other governments, or any other external sources, that was provided for the sole purpose of funding opioid-specific activities...”⁴⁵⁷

a) Affected Non-Compensation Costs and Overhead Adjustment Factor

It is unclear how McGuire arrived at final decisions on how to classify personnel as having been “affected” by opioid-related issues for purposes of determining the overhead adjustment factor. The same is true for McGuire’s identification of affected non-compensation costs. McGuire’s description of his own process makes clear that most of his determinations were based solely on his own ‘judgment’ after reading things like job titles and salaries in the counties’ annual budgets.⁴⁵⁸ McGuire also ‘think[s]’ that some of his determinations were made after discussions with consultants at Compass Lexecon.⁴⁵⁹ McGuire suggests that local officials provided ‘general confirmation’ of determinations, but also makes clear that most of his determinations were not confirmed with county officials.⁴⁶⁰

And while McGuire states in his report that “identification [of costs that would be expected to vary] was also informed by discussion with the personnel in the respective divisions,”⁴⁶¹ it does not appear that McGuire met with any representatives from Cuyahoga County or Summit County.⁴⁶² Plaintiffs produced notes prepared by McGuire’s staff from interviews with City of Cleveland personnel, but there are none from Summit or Cuyahoga.⁴⁶³ Additionally, in his deposition, McGuire could not recall a single conversation with county personnel and had no recollection of who his staff interviewed.⁴⁶⁴ McGuire should have, at a

⁴⁵⁷ See McGuire Report, para. 35.

⁴⁵⁸ See deposition of Thomas McGuire dated April 23, 2019, pp. 116:4-117:19 and 118:22-119:18.

⁴⁵⁹ See deposition of Thomas McGuire dated April 23, 2019, pp. 117:20-118:2.

⁴⁶⁰ See deposition of Thomas McGuire dated April 23, 2019, pp. 120:3-24 and 121:20-122:13.

⁴⁶¹ See McGuire Report, para. 59.

⁴⁶² McGuire references his discussions with county personnel in para. 9, 51, and 59 of his report; however, only lists interviews with Cleveland personnel in Appendix IV.B (Materials Considered).

⁴⁶³ See McGuire 0001-0007.

⁴⁶⁴ See deposition of Thomas McGuire dated April 23, 2019, pp. 73:2-8; 74:16-22; 75:15-76:17; 77:8-17; 81:14-82:9; 90:6-17.

HIGHLY CONFIDENTIAL

minimum, asked the county personnel if his underlying assumptions were reasonable regarding overhead adjustments and non-compensation costs.

Although I did not have the same access to county personnel, I was still able to identify discrepancies between the non-compensation costs McGuire identified and costs identified by county personnel. Mr. Kearns performed a cost analysis in 2017 that identified “cost categories that [Children Services] felt were child-specific and were related – or could be impacted by the opioid epidemic in the county.”⁴⁶⁵ Comparison of this cost analysis⁴⁶⁶ to McGuire’s identified accounts revealed that McGuire included numerous additional non-compensation accounts.⁴⁶⁷ There is no evidence that McGuire considered the estimate developed by county personnel and McGuire provided no justification for the inclusion of these additional non-compensation accounts. It is unlikely that McGuire would have more insight than an actual county employee regarding whether these expenses were impacted by opioids.

In my opinion, McGuire’s inability to support his decisions surrounding the development of his overhead adjustment factors and identified non-compensation costs render his damages (that are partially based off these amounts) speculative.

b) Offset to Affected Costs

McGuire’s identification of “affected costs” is also unreliable because he incorrectly accounts for offsetting revenues from other government or external sources. He acknowledges that both Cuyahoga County and Summit County received revenues in the form of “intergovernmental transfers” and that some of the funds received from other governments (state and/or federal), or other external sources, do not necessarily represent a cost to the counties. McGuire explicitly states that he excludes these funds from his “affected costs” if received “for the sole purpose of funding opioid-specific activities.”⁴⁶⁸ The important distinction in McGuire’s methodology relates to the stipulation under which the funds were provided – if the funds were

⁴⁶⁵ See deposition of Darin Kearns dated December 5, 2018, pp.270:23-271:6.

⁴⁶⁶ See SUMMIT_000344091.

⁴⁶⁷ Also note that Kearns did not include any compensation costs in his analysis, whereas McGuire includes all compensation costs.

⁴⁶⁸ See McGuire Report, para. 35.

HIGHLY CONFIDENTIAL

provided specifically related to the opioid epidemic, they offset losses to the county because the funds were not diverted from any other use. However, if the funds would have been provided absent the opioid epidemic, these are not netted out because “any funds that are devoted to opioid-related activities decreases funds available for other activities.”⁴⁶⁹

However, the relevant question is whether the grant funds apply to the affected service, whether or not the service is given an opioid-related designation or name. But even if McGuire’s description of how to account for intergovernmental transfers were correct, he has incorrectly ignored numerous sources of revenue that are provided to “affected divisions” on a reimbursement basis. It follows that if a division is experiencing an increase in opioid-related activities, which in turn leads to an increase in reimbursements from an external source, these amounts should be excluded from his damage calculations. McGuire mentions something to this effect in footnote 35 of his report:⁴⁷⁰

There may be outside funds (e.g. state or federal) that are provided to a county division that, while not explicitly mandated for use against the opioid-epidemic, are *indirectly tied* to the amount of activity provided by a division which may have increased as a result of the opioid epidemic. For the purpose of my current analysis, I do not net out these transfers. [emphasis added]

Some funds included in McGuire’s “affected costs” are provided to the affected divisions and are directly tied to the amount of activity allegedly affected by opioid abuse, which are described in further detail below.

Title IV-E Funds

For example, a significant portion of Cuyahoga County Children and Family Services’ and Summit County Children Services’ expenditures are funded by the federal government via the Social Security Act, with a majority of these funds coming from Title IV-E provisions.

⁴⁶⁹ See McGuire Report, para. 36.

⁴⁷⁰ See McGuire Report, footnote 35.

HIGHLY CONFIDENTIAL

These Title IV funds reimburse the counties for expenditures associated with child placements and are described in the Cuyahoga County 2014/2015 Budget Plan as follows.⁴⁷¹

Title IV-E - The County is reimbursed through Title IV-E of the Social Security Act for expenses associated with the placement of children who are at risk or victims of abuse or neglect substitute placement. The IV-E entitlement comes to the County through two allocations: Administration and Maintenance. The Administration allocation is the larger of the two and provides reimbursement for administrative expenses (including salary and benefits) and Maintenance provides reimbursement for the actual cost of substitute care (e.g. per diem paid to foster care homes and residential care providers).

The 2016 Summit County Children Services budget has similar language:⁴⁷²

Title IV-E Administration dollars are a reimbursement of social service cost pool based on the state formulas and the Random Moment Studies. The 2016 Budget is based on recent trending and formulated based upon projected expenditures and random moment coding. As costs decrease, IV-E revenue is proportionatly (*sic*) lower.

Title IV-E Placement revenues are reimbursements for IV-E eligible children in the care of SCCS. Reimbursements are at prescribed rates based on the level of care subject to cap limits....

Title IV funds are directly connected to the number of children in custody/placement and fluctuate accordingly. This relationship was highlighted in the Cuyahoga 2016/2017 Budget plan referring to the decrease in Title-IV money received:⁴⁷³

Title-IV revenue, which reimburses the County for out-of-home board and care expenses, has been declining due to reductions in the number of children in placement.

⁴⁷¹ See Cuyahoga 2014-2015 Budget Plan, p. IV-4.

⁴⁷² See Children Services 2016 Budget, p. 61.

⁴⁷³ See Cuyahoga 2016-2017 Budget Plan, p. IV-4.

HIGHLY CONFIDENTIAL

Following McGuire's own logic, any funds received on a reimbursement basis (although not specifically identified for combating opioid-related issues) could not have been diverted from any other use. Thus, these Title-IV-E funds should have been excluded from McGuire's "affected costs" (e.g., salaries, foster care homes, child board and care costs).

I quantified Title IV-E funds received by Cuyahoga and Summit over McGuire's presumed damage period. The cumulative revenues are shown below:

- Cuyahoga County Title IV-E (2006-2017): \$478,542,865 ⁴⁷⁴
- Summit County Title IV-E (2006-2018): \$157,077,917 ⁴⁷⁵

As evidenced, these funds comprise a significant source of revenue for Cuyahoga County Children and Family Services and Summit County Children Services. By not subtracting these reimbursements from the federal government from his "affected costs," McGuire is overstating the amount of "affected costs." Excluding these amounts alone reduces his damages (under Approach 1- Damages from Defendants' Misconduct - Direct Shipments Regression Method) for Cuyahoga County Children and Family Services and Summit County Children Services by approximately \$16.6 million (33%) and \$12 million (32%) in Cuyahoga and Summit Counties, respectively.⁴⁷⁶ This error rate is indicative of a speculative and unreliable methodology.

My review of the relevant documents has shown various other affected divisions that also receive external funds on a reimbursement basis, which McGuire incorrectly handled. Different forms of reimbursement (and which county divisions receive these funds) are described below:

Reimbursements from the State of Ohio Public Defender

Counties are required to provide legal counsel to indigent individuals. Cuyahoga and Summit Counties accomplish this through two avenues: (1) assignment of an attorney from the Public Defender's Office, or (2) the assignment of a private attorney who is reimbursed by the

⁴⁷⁴ See Appendix 9 – Offset of Title IV-E Funds, Cuyahoga County Children & Family Services and CUYAH_001714459.

⁴⁷⁵ See Appendix 10 – Offset of Title IV-E Funds, Summit County Children Services and SUMMIT_002054603.

⁴⁷⁶ See Appendices 9 – Offset of Title IV-E Funds, Cuyahoga County Children & Family Services, and 10 – Offset of Title IV-E Funds, Summit County Children Services.

HIGHLY CONFIDENTIAL

county. Costs incurred by Cuyahoga and Summit Counties related to payment for private attorneys are captured under expense accounts titled “assigned counsel”⁴⁷⁷ or “attorney fees,”⁴⁷⁸ respectively. These indigent defense costs are partially reimbursed by the State of Ohio Public Defender.⁴⁷⁹ Effective reimbursement rates have varied over the years and are reported in the counties’ budgets⁴⁸⁰ and on the State of Ohio Public Defender website.⁴⁸¹ McGuire includes the Public Defender’s Office, “assigned counsel,” and “attorney fees” expense accounts in his affected non-compensation costs for the following divisions and should therefore include an offset for reimbursed funds:

- Cuyahoga County: Office of the Public Defender, Court of Common Pleas, and Juvenile Court
- Summit County: Court of Common Pleas, Juvenile Court⁴⁸²

McGuire was not aware that these costs are partially reimbursed to the Counties and when made aware of this fact at his deposition he stated, “...I think your -- if what you’re saying is has some basis, then it’s something I would want to look at.”⁴⁸³

Reimbursements from Title IV funds for Juvenile Cases

Similar to reimbursements for Cuyahoga County Children and Family Services and Summit County Children Services, certain judicial divisions that handle juvenile cases are also subject to reimbursement from Title IV-E funds.⁴⁸⁴ In Cuyahoga County, the Juvenile Court

⁴⁷⁷ See Cuyahoga 2016/2017 Budget Plan, p. 146.

⁴⁷⁸ See Summit County 2018 Operating Budget, pp. 380-381 and p. 405.

⁴⁷⁹ See <https://opd.ohio.gov/Reimbursement/Reimbursement#105161-application-fee--recoupment>.

⁴⁸⁰ See Cuyahoga County Budget Plans, “Office of the Public Defender” section, and Summit County Operating Budgets, “General Fund – Attorney/Jury Fees” section.

⁴⁸¹ See State of Ohio Public Defender - Reimbursement History for Purposes of Calculating Recoupment (<https://opd.ohio.gov/Portals/0/PDF/Reimbursement/Reimbursement-Percent-History.pdf?ver=2019-02-21-093626-180>).

⁴⁸² See Reimbursement for the Juvenile Court (while not explicitly stated in the Juvenile Court budget discussion) was confirmed through review of General Fund revenue accounts: “Defense of Indigent” and “Juvenile Atty Fee Reimbursement” in the Summit County Banner accounting system (SUMMIT_002054603).

⁴⁸³ See deposition of Thomas McGuire dated April 30, 2019, pp. 827:10-828:12.

⁴⁸⁴ See <http://codes.ohio.gov/orc/2151.152v1>.

HIGHLY CONFIDENTIAL

receives Title IV-E revenues⁴⁸⁵ that fund salaries and other miscellaneous expenses.⁴⁸⁶ The Cuyahoga Office of the Prosecutor receives reimbursements from Title IV-D⁴⁸⁷ and Title IV-E funds for the interdepartmental divisions of Child Support and Children and Family, respectively.^{488, 489} In Summit, the Prosecutor's office receives Title IV-E funding for prosecutors assigned to abuse/dependency/neglect cases.⁴⁹⁰ McGuire failed to consider these reimbursements in his damage calculation.

Reimbursements by City Municipal Courts

Municipal courts within the cities also provide sources of revenue to the counties. McGuire offsets the City of Akron's "indigent defense contract" against Summit's Affected Costs.⁴⁹¹ However, he fails to offset reimbursements received by Cuyahoga from Cleveland for providing legal counsel to indigent clients in the Cleveland Municipal Court.⁴⁹²

Reimbursements by the State of Ohio for Judges' Salaries

The Cuyahoga County Court of Common Pleas was reimbursed from the State of Ohio for the compensation of its 34 elected judges.⁴⁹³ McGuire failed to consider this since he did not offset this reimbursement from the "affected compensation costs" which include judges' salaries.⁴⁹⁴

⁴⁸⁵ See CUYAH_001714459.

⁴⁸⁶ See CUYAH_014627783.

⁴⁸⁷ See <http://codes.ohio.gov/orc/3125>.

⁴⁸⁸ See Cuyahoga 2018/2019 Budget Plan, "Office of the Prosecutor" section.

⁴⁸⁹ See Children and Family Division is also supported by State Child Welfare Allocations and the County's Health and Human Services Levy (Cuyahoga 2018/2019 Budget Plan, "Office of the Prosecutor" section).

⁴⁹⁰ See deposition of Brad Gessner dated December 3, 2018, pp. 286:23-287:12.

⁴⁹¹ See McGuire Appendix IV.D-4.1, Court of Common Pleas.

⁴⁹² See Cuyahoga County 2018/2019 Budget Plan, "Office of the Public Defender" section.

⁴⁹³ See Cuyahoga County Court of Common Pleas 2017 Annual Report, "Fiscal Report" section. "Salary and Fringe Benefits is the largest expense category representing compensation to approximately 513 full and part-time staff, inclusive of the 34 elected judges who are paid by the State of Ohio."

⁴⁹⁴ This reimbursement has not been confirmed for Summit County. To the extent this is a statewide policy, an offset should also be applied to Summit County.

HIGHLY CONFIDENTIAL

In general, it does not appear that McGuire made any real attempt to review accounting documents, budgets, or even testimony that clearly identify revenues derived from reimbursements, which by his own definition, are not at issue in this case and should be removed from damages. The demonstrated lack of knowledge regarding funding sources and resulting high error rates are yet another reason McGuire's opinions on damages should be rejected.

C. Inappropriate, Deficient, and Insufficient Data

McGuire's damages are entirely dependent on the work of Cutler, who bases his work on inappropriate, deficient, and insufficient data, fails to properly analyze and vet his underlying data sources, and ignores a significant amount of county specific data produced by Plaintiffs. McGuire admits that selecting the right data is a crucial step, and the failure to do so represents a critical deficiency in Cutler's, and therefore McGuire's opinions.⁴⁹⁵

As previously described, McGuire calculates damages for Bellwether governments by analyzing the "increased demand for services resulting from defendants' misconduct" using the following formula:^{496,497}

$$\begin{aligned} \text{Damages} = & \quad (1) \text{ Total Costs Incurred in Bellwether Divisions Affected by Opioid Crisis} \\ & \quad \times (2) \text{ Share of Total Costs in Relevant Divisions That Address Harms} \\ & \quad \times (3) \text{ Share of Harm Attributable to Defendants' Misconduct} \end{aligned}$$

McGuire relies on Cutler to provide the last element of his damage calculation, (3) share of harm attributable to defendants' misconduct. This part of the equation is described within Cutler's report as the following:⁴⁹⁸

$$\begin{aligned} & (3) \text{ Share of Harms Attributable to Defendants' Misconduct} \\ & = (4) \text{ Share of Harms Attributable to Opioids ("Opioid-Related \%")} \\ & \times (5) \text{ Share of Opioid Harms Attributable to Opioid Shipments} \end{aligned}$$

⁴⁹⁵ See Deposition of Thomas McGuire dated April 23, 2019, p. 143:7-23.

⁴⁹⁶ See McGuire Report, para. 16 and 72.

⁴⁹⁷ Note that McGuire and Cutler do not assign numbers to calculation steps within their individual reports (i.e., numbers 1-6 above). I have included numbers here for illustrative purposes.

⁴⁹⁸ See McGuire Report, footnote 15 and Cutler Report, para. 23.

HIGHLY CONFIDENTIAL

× (6) Share of Opioid Shipments Due to Defendants' Misconduct

Example: Damages to Cuyahoga County Sheriff's Department			2017
McGuire	(1) Total Costs Incurred by Cuyahoga Sheriff		<i>(\$ in millions)</i>
	Total Compensation Costs	[a]	\$32.9
	Affected Non-Compensation Costs	[b]	\$0.8
	(2) Share of Costs in Relevant Divisions that Address Harms		
	Overhead Adjustment	[c]	93.2%
	Crime-Focused Percentage	[d]	68.7%
	Offset to Affected Costs	[e]	\$0.0
	(3) Share of Harms Attributable to Defendants' Misconduct		
Cutler	<i>(taken from Cutler Report)</i>	[f]	5.2%
	Damages to Cuyahoga Sheriff	$([a]*[c]*[d]+[b]-[e])*[f]$	\$1.1
	(4) Share of Harm Attributable to Opioids ("Opioid-Related %")	[g]	11.0%
	(5/6) Share of Harm (based on Regression)	[h]	47.7%
	(3) Share of Harms Attributable to Defendants' Misconduct	$[f]=[g]*[h]$	5.2%

Steps five and six in Cutler's report are outside the scope of my report. However, I did analyze Cutler's determination of the (4) Share of Harms Attributable to Opioids (referred to elsewhere as the "Opioid-Related %") within the affected divisions.

The Opioid-Related % step attempts to quantify the yearly percentage of opioid-related activities undertaken by each affected division. Oftentimes in Cutler's analysis this includes first calculating the share of harms attributable to all drugs, and then further apportioning to opioids. This step is foundational to not only Cutler's calculations, but McGuire's damages calculations. To the extent Cutler's determination of (4) Opioid-Related % in the equation above is unreliable, the entire damage model fails and must be disregarded. The sources used by Cutler to evaluate the Opioid-Related % calculations are outlined below:

HIGHLY CONFIDENTIAL

			Data Sources for Cutler's Opioid-Related % Calculations							
			Total Incident Counts				Drug-Related Incidents	Opioid-Related Incident		
County	McGuire Damage Category	Opioid-Related %	NIBRS	BJS	Juvenile Court Cases	Prosecutor Database	US DOJ	NFLIS	NSDUH	PCSAO
Cuyahoga	Children & Family Services	Removals								✓
	Prosecutor					✓	✓	✓	✓	
	Public Defender	Charges				✓	✓	✓	✓	
	Sheriff					✓	✓	✓	✓	
	Court of Common Pleas	Adult Charges				✓	✓	✓	✓	
	Jail					✓	✓	✓	✓	
	Juvenile Court	Juvenile Cases			✓		✓	✓	✓	
Summit	Children Services	Removals								✓
	Prosecutor		✓				✓	✓	✓	
	Court of Common Pleas	Crimes	✓				✓	✓	✓	
	Sheriff		✓				✓	✓	✓	
	Adult Probation		✓				✓	✓	✓	
	Sheriff Jail	Prisoners		✓			✓	✓	✓	
	Alternative Corrections			✓			✓	✓	✓	
	Juvenile Court	Juvenile Cases			✓		✓	✓	✓	

As shown in the table above, Cutler relies on various data sets from local, state, and federal sources in determining the (4) Opioid-Related %. However, the data utilized to calculate these opioid-related percentages are deficient in numerous ways, which will be discussed in the following sections of my report. As previously discussed, McGuire's entire methodology should be rejected for a variety of reasons. Setting the methodological deficiencies aside, McGuire's adoption of Cutler's Opioid-Related % renders his damages speculative and unreliable for the reasons discussed below.

Children and Family Services Data

Cuyahoga County Children and Family Services and Summit County Children Services comprise the largest divisional damages calculated by McGuire. Cutler calculates his "opioid-related percent of child removals"⁴⁹⁹ for the period 2006 through 2017 based on a single data point obtained from a survey completed by the Public Children Services Association of Ohio ("PCSAO"). This survey reported the percentage in 2015 of "children taken into custody [with]

⁴⁹⁹ Or "Opioid-Related % of custodies" in the McGuire Report (See McGuire Appendix IV.D-2.1 and IV.C-2.1).

HIGHLY CONFIDENTIAL

parental drug use” and the percentage “of children taken into custody [with] parents who were using opioids at time of removal.”⁵⁰⁰ Results are summarized in the table below:

PCSAO Survey Results	Ohio (Statewide)	Cuyahoga	Summit
Drug-Related Removals	50%	75%	50%
Opioid-Related Removals	28%	11%	25%

This survey is unreliable as a primary source to determine “opioid-related percent of child removals” for myriad reasons including the following:

- The survey period is a single year.
- The survey instructions state, “This survey is intended to provide a few key data points, *not an in-depth analysis*.” [emphasis added]⁵⁰¹
- The survey allows for responders to provide “[a]ctual [d]ata (i.e., desk review or hand-counted) or [e]stimated [d]ata.”⁵⁰² As such, it is not known if the drug and opioid-related removal percentages for Cuyahoga County and Summit County represent actual or estimated data.
- The opioid-related removal percentages for Cuyahoga County (11%) and Summit County (25%) were vastly different and the reason for the difference is unknown.
- The opioid-related removal percentage purported in one Ohio county was 100%.

The demographic below shows the exact map from which Cutler sourced his Opioid-Related % of removals:⁵⁰³

⁵⁰⁰ See <http://www.pcsao.org/pdf/advocacy/OpioidBriefingSlidesUpdated12-17.pdf>, slides 9-10.

⁵⁰¹ See CUYAH_002479900.

⁵⁰² See questions 5 and 6 of the PCSAO survey at CUYAH_002479900.

⁵⁰³ See <http://www.pcsao.org/pdf/advocacy/OpioidBriefingSlidesUpdated12-17.pdf>, slide 10.



HIGHLY CONFIDENTIAL

A spreadsheet accompanying this statement outlines the significant differences between the results of the PCSAO survey and the SACWIS data mentioned in the statement above, which Cutler ignores. Specifically, the percentage difference between the count of “entries into custody” (or child removals) in 2015 between the PCSAO survey and the SACWIS data was - 15% and 55% for Cuyahoga and Summit Counties, respectively.⁵⁰⁵ The internal discussions regarding reliability of the data raise questions about Cutler and McGuire’s reliance on this data for calculating damages due to the Counties. In his deposition, Cutler acknowledges that he did not review the survey questions or any of the underlying data and/or questions surrounding the accuracy of the survey.⁵⁰⁶ Ignoring relevant data, and utilizing data without evaluating its veracity is a significant deficiency and exemplifies analysis that does not meet the standards for expert testimony.

I also identified further significant discrepancies between the PCSAO drug-related removals statistics and other external sources of information. There are significant differences between the results of the PCSAO survey and the Adoption and Foster Care Analysis and Reporting System (“AFCARS”) data relied upon by Plaintiffs’ own expert, Nancy Young. Specifically, the AFCARS data indicates that in 2015, “parental drug use as a factor for reason for [child] removal in Cuyahoga and Summit Counties” occurred in 21.1% and 27.8% of cases, respectively.⁵⁰⁷ However, the PCSAO survey utilized by Cutler found that parental drug use in Cuyahoga and Summit Counties was a factor in 75% and 50% of removals that same year.⁵⁰⁸ Plaintiffs’ own experts cannot seem to agree on or identify the best source of information for child removals involving any kind of drug abuse, much less specific to opioids. Further, neither Cutler nor McGuire evaluated the various data sources available to them or analyzed which was most reliable. Both ignore Plaintiffs’ own data and utilize a highly suspect, unreliable survey without evaluation or vetting. This is not consistent with the standards for expert testimony and renders the conclusion of both Cutler and McGuire unreliable.

⁵⁰⁵ See CUYAH_002479899.

⁵⁰⁶ See deposition of David Cutler dated April 26, 2019, p. 262:9-263:1 and 270:2-21.

⁵⁰⁷ See Young Report, p. 19.

⁵⁰⁸ See Cutler Report, Table III.6.

HIGHLY CONFIDENTIAL

Cutler compounds this problem exponentially by backcasting and forecasting the unreliable 2015 figure without examining the Counties' actual children services' data. Because the survey was only produced for 2015, Cutler extrapolates the Cuyahoga and Summit percentages for the rest of the years using data from the ADAMHS/ADM Boards. Cutler's backcast and forecast of "opioid-related percent of child removals" for the period 2006 through 2017 is contradicted by SACWIS data from Cuyahoga and Summit. Specifically, I noted the percent of opioid-related child removals per Cutler exceeded the percent of total drug removals for all drugs in the SACWIS data for the majority of the time period, which of course is impossible. Opioid removals cannot possibly exceed all drug-related removals, and in fact opioid removals are likely a modest percentage of drug removals.

Table VI.C-1: Cuyahoga - Cutler Opioid-Related Removals v. SACWIS Drug Related Removals

Cuyahoga Removal Percentages	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
% of <i>Opioid Related</i> Removals in Cuyahoga per <i>Cutler</i>	4.5%	5.4%	6.2%	7.0%	7.4%	7.3%	7.2%	8.8%	10.1%	11.0%	14.9%	15.7%
% of <i>Drug Related</i> Removals in Cuyahoga per <i>SACWIS</i>	8.7%	10.7%	5.2%	3.1%	2.6%	5.8%	12.4%	14.3%	13.4%	12.6%	13.5%	17.0%
% of <i>Drug Related</i> Removals in Cuyahoga per <i>Young Report</i>	11.5%	11.0%	9.4%	11.1%	15.9%	17.9%	19.4%	21.7%	21.6%	21.1%	19.9%	24.0%

Note: SACWIS removals based on the removal reasons "Drug Abuse of parent," "Prenatal Drug Exposure," "Drug Abuse of child," and "Child affected by substance use."

Source: CUYAH_002442182.

Table VI.C-2: Summit - Cutler Opioid-Related Removals v. SACWIS Drug Related Removals

Summit Removal Percentages	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
% of <i>Opioid Related</i> Removals in Summit per <i>Cutler</i>	4.4%	5.1%	6.5%	8.8%	22.0%	21.2%	23.3%	24.7%	24.1%	25.0%	30.3%	27.0%
% of <i>Drug Related</i> Removals in Summit per <i>SACWIS</i>	13.6%	14.9%	9.9%	5.0%	7.4%	5.0%	7.3%	7.6%	12.4%	8.4%	9.1%	12.3%
% of <i>Drug Related</i> Removals in Summit per <i>Young Report</i>	10.2%	13.4%	11.6%	14.0%	16.2%	16.0%	19.8%	25.4%	29.0%	27.8%	30.6%	31.9%

Note: SACWIS removals based on the removal reasons "Drug Abuse of parent," "Prenatal Drug Exposure," "Drug Abuse of child," and "Child affected by substance use."

Source: SUMMIT_002103952.

Even though SACWIS data may be unreliable and contain some limitations in the ability to specifically track opioid-related removals (which I intend to explore with the underlying case

HIGHLY CONFIDENTIAL

files when I receive them), it is still not logical for Cutler to conclude that opioid-related removals would exceed total drug related removals in the years identified above.

One of the reasons Cutler's opioid removal percentages are so inconsistent with the Plaintiffs' own data is due to the extrapolation performed by Cutler to fill in the remaining twelve years. Because the PCSAO survey was only published in 2015, Cutler relies on ADAMHS opioid client counts (Cuyahoga County) and ADM opioid-related treatment payments (Summit County) to estimate an "opioid-related percent of child removals" for all other years. In his deposition, Cutler states the following:⁵⁰⁹

The back casting that we're using from the 2015 report is based on the share of people with substance use that are related to opioids from the ADAMHS Board and the ADM Board. Those -- again, substance use disorder is a very severe form of utilization, and, of course, child removals is a very severe form of interaction with a family -- with a troubled family, so I was -- I felt confident in using the severe form of use disorder to back cast the severe form of child intervention.

However, Cutler has not performed any analysis that establishes the extent of the relationship between these two factors. Certainly, an economist is qualified to establish whether there is a correlation between these factors rather than speculating that such a relationship exists without testing the linearity of the relationship.

Furthermore, using the number/percentage of opioid clients served from the Cuyahoga County ADAMHS board annual report has several deficiencies in the data regarding completeness. The ADAMHS annual reports⁵¹⁰ outline several disclosures relating to the lack of completeness in client counts that are reported within their annual reports. I've included a few examples of these disclosures from the 2016 and 2017 ADAMHS annual reports:

- Several of the providers had to implement new billing systems to comply with federal claims requirements, therefore this data may not include all clients served.

⁵⁰⁹ See deposition of David Cutler dated April 26, 2019, p. 266:15-267:1.

⁵¹⁰ See ADAMHS 2006-2017 Annual Reports.

HIGHLY CONFIDENTIAL

- Due to the switching of service claiming from MACSIS to SHARES for Pilot Providers, some clients were not enrolled and/or claims not submitted so those clients were not counted.
- The numbers of clients served is generated from clients paid through the Multi-Agency Community Services Information System (MACSIS) billing system, and do not include individuals served through services paid for by grants to providers...We know we are serving thousands of people through grant funded programs. Now that the Board has transitioned to SHARES, we will have a more complete numbers in CY18.
- Medicaid Expansion continued to allow more people to receive treatment services previously paid for by the ADAMHS Board.

These disclosures relating to the concern over completeness of clients served is not mentioned by Cutler in his analysis, even though he bases his entire calculation on these percentages to forecast and backcast his opioid-related percent of removals for Cuyahoga County Children and Family Services.⁵¹¹

Crime Related Divisions Data

Cutler estimates the Opioid-Related % for the crime related divisions by utilizing several data sources.⁵¹² As seen in the Table VI.C-3 below, Cutler utilizes common data sources to analyze six crime related divisions in Cuyahoga County and seven crime related divisions in Summit County.

⁵¹¹ The ADAMHS opioid client count is also utilized in Cutler's calculation of Cuyahoga County ADAMHS opioid-related percentage of services and would share the same limitations and deficiencies as noted above.

⁵¹² See Cutler Report, p. 17.

HIGHLY CONFIDENTIAL

Table VI.C-3: Cutler's Share of Crime Attributable to Opioids

			Data Sources for Cutler's Opioid-Related % Calculations						
			Total Incident Counts				Drug-Related Incidents	Opioid-Related Incident	
County	McGuire Damage Category	Opioid-Related %	NIBRS	BJS	Juvenile Court Cases	Prosecutor Database	US DOJ	NFLIS	NSDUH
Cuyahoga	Prosecutor	Charges				✓	✓	✓	✓
	Public Defender					✓	✓	✓	✓
	Sheriff					✓	✓	✓	✓
	Court of Common Pleas	Adult Charges				✓	✓	✓	✓
	Jail					✓	✓	✓	✓
	Juvenile Court	Juvenile Cases			✓		✓	✓	✓
Summit	Prosecutor	Crimes	✓				✓	✓	✓
	Court of Common Pleas		✓				✓	✓	✓
	Sheriff		✓				✓	✓	✓
	Adult Probation		✓				✓	✓	✓
	Sheriff Jail	Prisoners		✓			✓	✓	✓
	Alternative Corrections			✓			✓	✓	✓
	Juvenile Court	Juvenile Cases			✓		✓	✓	✓

As was the case with the data Cutler utilized for the Cuyahoga County Children and Family Services and Summit County Children Services divisions, there are significant deficiencies in the data Cutler used for his calculations of the Opioid-Related % for the Cuyahoga County and Summit County crime related divisions. In addition, Cutler never consulted county personnel to determine what county specific data was available,⁵¹³ and as a result, it is not evident that he analyzed county specific data produced by the Plaintiffs which reflected specific activity in the counties. Such data exists, but Cutler chose to ignore it. Instead, he uses national and state level data sources as a proxy for Cuyahoga and Summit Counties, which by definition are not specifically representative of county activity. Specific shortcomings for the highlighted data sources in Table VI.C-3 above are outlined below.

The first step in Cutler's Opioid-Related % calculation is to determine the amount of criminal activity as it relates to crime offenses, criminal bookings, or criminal charges depending on the affected division. As seen in Table VI.C-3 above, Cutler uses the FBI's National Incident Based Reporting System ("NIBRS"), the Bureau of Justice Statistics ("BJS") - Prisoner Statistics, Juvenile Court Cases, and the Cuyahoga County Prosecutor database.

⁵¹³ See deposition of David Cutler dated April 26, 2019, pp. 229:17-230:10.

HIGHLY CONFIDENTIAL

Bureau of Justice Statistics (“BJS”): Cutler uses data from the Bureau of Justice Statistics in his calculation of the Summit County Opioid-Related % for the County Jail and Alternative Corrections divisions. The BJS data is described by Cutler as data related to the “distribution of crime across inmates in the Ohio state prison system.”⁵¹⁴ There are several flaws with using this data. First, the prisoner statistics are not specific to Ohio as Cutler incorrectly indicated in his report. Rather, the data is from “central respondents in each of the 50 state departments of correction, the Federal Bureau of Prisons, and 5 commonwealth territories annually.”⁵¹⁵ In addition, almost all prisoners in the BJS data are sentenced to more than one year.⁵¹⁶ This is not representative of the County Jail population as “jails are locally operated short-term facilities that hold inmates awaiting trial or sentencing or both, and inmates sentenced to a term of less than one year, typically misdemeanants.”⁵¹⁷ However, prisons are “longer-term facilities run by the state or the federal government that typically holds felons and persons with sentences of more than one year.”⁵¹⁸ Thus, Cutler’s use of national prison population statistics as a proxy for a local county jail is flawed because it fails to consider or account for the different inmate profiles. In turn, McGuire relying on these inputs calls into question damages associated with the affected divisions.

Prosecutor Database: In Cuyahoga County, Cutler’s main source of crime incident data is the Prosecutor database produced by Plaintiffs.⁵¹⁹ Cutler utilizes this data set across five affected divisions. This data is only available for the years 2010 through 2017.⁵²⁰ Cutler backcasts the number of total charges for 2006-2009.

The Prosecutor database contains charges stemming from 167 different law enforcement agencies/divisions.⁵²¹ Cuyahoga County Sheriff’s Department only accounts for 6.2% of total

⁵¹⁴ See Cutler Report, pp. 18-19.

⁵¹⁵ See <https://www.bjs.gov/index.cfm?ty=dcdetail&iid=269>.

⁵¹⁶ See https://www.bjs.gov/content/pub/pdf/p16_sum.pdf.

⁵¹⁷ See <https://www.bjs.gov/index.cfm?ty=qa&iid=322>.

⁵¹⁸ See <https://www.bjs.gov/index.cfm?ty=qa&iid=322>.

⁵¹⁹ See Cutler Report, p. 18 and CUYAH_000097414.

⁵²⁰ The database contains adult charges back to 2009 but is incomplete for juvenile charges (see CUYAH_000097414).

⁵²¹ See CUYAH_000097414.

HIGHLY CONFIDENTIAL

charges included in the Prosecutor database from 2009 to 2017;⁵²² therefore, Cutler using the full database as a representation of the activities of the Cuyahoga County Sheriff's Department is speculative. Additionally, the jail population includes individuals that are not prosecuted by the County Prosecutor, including municipal inmates held at the County Jail as well as fugitives that are processed through the County jail but later extradited.⁵²³ The Plaintiffs produced other county specific data for criminal divisions which Cutler failed to consider. For example, Cuyahoga County maintains Sheriff Jail Bookings data⁵²⁴ specific to Cuyahoga County Sheriff activities and the population of inmates booked at the County Jail. Cutler does not explain why this data set is not relevant to these divisions or investigate how the populations in each database are different.

U.S. Department of Justice Study: Cutler utilizes a 2011 Department of Justice ("DOJ") study⁵²⁵ to determine the share of crimes that were either directly or indirectly motivated by drugs (i.e. 32.3% of burglaries are drug related).⁵²⁶ The DOJ establishes a Drug Attribution Factor ("DAF") through a national survey of inmates in local jails from 2002,⁵²⁷ which Cutler uses in his Opioid-Related % calculation of Cuyahoga and Summit Counties from 2006 to 2017.⁵²⁸ Cutler provides no evidence that the nationwide local jail population in 2002 is representative of Cuyahoga County or Summit County⁵²⁹ or that the static DAF metric would not have changed between 2002 and 2017. Additionally, Cutler applies the DAF metric to the Prosecutor database, which includes untried charges while the DAF relies on a survey of

⁵²² See CUYAH_000097414.

⁵²³ There is also a large population of parole or probation violators that are processed through the County Jail but not included in the Prosecutor database (see CUYAH_000120708, CUYAH_000114691, and CUYAH_002503213).

⁵²⁴ See CUYAH_002503213.

⁵²⁵ See U.S. Department of Justice, National Drug Intelligence Center, "The Economic Impact of Illicit Drug Use on American Society," 2011 (<https://www.justice.gov/archive/ndic/pubs44/44731/44731p.pdf>).

⁵²⁶ See Cutler Report, p. 20.

⁵²⁷ See U.S. Department of Justice, National Drug Intelligence Center, "The Economic Impact of Illicit Drug Use on American Society," 2011, p. 7 (<https://www.justice.gov/archive/ndic/pubs44/44731/44731p.pdf>).

⁵²⁸ See Cutler Report, pp. 19-20.

⁵²⁹ Cutler also applies this drug attribution survey to juvenile charges, and while a small portion of juvenile offenders were in the sample population (1.6% = 9,449 juvenile inmates / 605,997 total inmates), it is unclear if the population of adult and juvenile offenders would be similar. See deposition of David Cutler dated April 26, 2019, pp. 278:5-279:2 and <http://dx.doi.org/10.3886/ICPSR04359>.

HIGHLY CONFIDENTIAL

sentenced inmates. Further to this point, Cutler ignored county-specific data showing that drug crime has been trending down over time in both counties as discussed previously.⁵³⁰

For example, the amount of criminal activity that Cutler calculated with the NIBRS data could have been further used to establish a specific DAF for Summit County. The NIBRS data contains property and corresponding suspected drug tables for Summit County Sheriff, which provides information on all offenses where drugs were involved. The comparison between the DOJ study from 2002 and the NIBRS data from 2006 to 2017 is seen in Table VI.C-4 below.

Table VI.C-4: Comparison of Cutler’s Percent of Crimes that are Drug-Related

Crime Category	Drug-Related % of Criminal Activity	
	DOJ Survey (2002)	NIBRS Data (2006-2017 Avg)
Aggravated Assault	4.4%	2.3%
All Other Offenses	7.0%	0.6%
Arson	1.3%	1.6%
Burglary	32.3%	1.3%
Curfew/Loitering/Vagrancy	N/A	N/A
Disorderly Conduct	N/A	N/A
Driving Under the Influence	3.5%	N/A
Drug Crimes	100.0%	100.0%
Drunkenness	8.3%	N/A
Embezzlement	8.8%	N/A
Family and Children	5.1%	N/A
Forcible Rape	5.5%	0.5%
Forgery and Fraud	32.2%	2.5%
Gambling Offenses	N/A	20.0%
Human Trafficking	N/A	N/A
Larceny-theft	28.8%	1.3%
Liquor Laws	0.0%	N/A
Motor Vehicle Theft	24.1%	0.3%
Murder	3.9%	7.7%
Other Assaults	4.4%	1.9%
Prostitution	51.1%	7.9%
Robbery	29.5%	4.0%
Sex Offenses	0.9%	0.9%
Stolen Property	12.2%	11.3%
Vandalism	2.8%	0.5%
Weapons	3.0%	25.1%

Sources: Cutler Table III.3 and Appendix III.C.3; NIBRS Data produced by Cutler, publicly available at <https://crime-data-explorer.fr.cloud.gov/downloads-and-docs>.

⁵³⁰ Drug crimes in Cuyahoga County have trended downward since 2009 (see CUYAH_000097414) and drug incidents in Summit County have declined since 2006 (see SUMMIT_000064914).

HIGHLY CONFIDENTIAL

Applying the 2017 percentages to the initial NIBRS crimes by offense type from Cutler's Report from 2017 yields 523 Offenses Related to Drugs versus the 911 offenses calculated by Cutler using the DAF metric from the DOJ survey.⁵³¹ This decreases the Drug-Related % of Crimes for 2017 to 18.5% compared to Cutler's 32.3% as seen in Table VI.C-5 below.

Table VI.C-5: Cutler's Drug-Related % of Criminal Activity Using NIBRS Data

2017 Offenses	Cutler (DOJ Survey)	NIBRS
Total Offenses Related to Drugs (a)	911	523
Total Offenses Reported	2,820	2,820
Drug-Related % of Criminal Activity	32.3%	18.5%

Similarly, the Cuyahoga County Prosecutor's data contains non-drug offense charges that include detailed case information and descriptions,⁵³² which could be used to analyze non-drug crimes and determine whether the offense was related to drugs. As seen in Table VI.C-6 below, these amounts are vastly different from the survey, which calls into question the data used by Cutler and his failure to analyze the differences in the county level data.

⁵³¹ See Cutler Report, Appendix III.C.2.

⁵³² See CUYAH_000097414.

HIGHLY CONFIDENTIAL

Table VI.C-6: Comparison of Cutler's Percent of Crimes that are Drug-Related

Crime Category	Drug-Related % of Crime	
	DOJ Survey (2002)	Prosecutor Database (2010-2017 Avg)
Aggravated Assault	4.4%	1.7%
Arson	1.3%	1.5%
Burglary	32.3%	2.4%
Murder	3.9%	4.1%
Curfew and Loitering	0.0%	3.6%
Disorderly Conduct	0.0%	1.9%
DUI	3.5%	14.4%
Drug Abuse Violations	100.0%	100.0%
Forcible Rape	5.5%	1.0%
Forgery and Fraud	32.2%	6.7%
Larceny-theft	28.8%	3.3%
Motor Vehicle Theft	24.1%	7.9%
Other Assaults	4.4%	3.5%
Prostitution	51.1%	43.8%
Robbery	29.5%	2.2%
Sex Offenses	0.9%	1.4%
Vandalism	2.8%	2.4%
Weapons	3.0%	21.5%

Note 1: Cases were identified using the MatterID and then grouped by the FBI UCR mapped to the case's associated charge codes. A single case can be identified under multiple FBI UCRs if there are multiple charge codes under each MatterID.

Note 2: Each case grouped under an FBI UCR code was determined to have a drug relationship based on the content of the (a) FBI UCR name, (b) Original Charge Name and (c) Incident Title using the Drug Identifiers list (See "Drug Identifiers" tab). A drug-relationship was identified if a keyword from the Drug Identifiers list was found in any of the three fields.

Sources: CUYAH_000097414.

Moreover, the City of Cleveland has produced millions of narratives from their Law Enforcement Records Management System ("LERMS"),⁵³³ which can be searched to examine the types of drugs involved in all Cleveland Police offenses. These county specific data sources provide measurements over the alleged damage period versus a static national metric from 2002. By failing to use or consider this data, Cutler overstates the share of crimes that are drug related,⁵³⁴ which ultimately leads to overstated damages by McGuire. This failure to consider

⁵³³ See CLEVE_002443689-CLEVE_002516526, CLEVE_002778417-CLEVE_003014183, LERMS000000001-LERMS003775279, LERMS003775280-LERMS005521322, and LERMS005521323-LERMS008914720.

⁵³⁴ The overall average percentage of drug related crimes from 2006 to 2017 calculated by Cutler is 29.0% (see Cutler Report, Appendix III.C.2) versus 14.9% using the Summit County NIBRS data (see NIBRS Data produced by Cutler).

HIGHLY CONFIDENTIAL

relevant data not only overstates damages, but renders Cutler's, and therefore McGuire's opinions unreliable.

NFLIS and NSDUH: Cutler estimates the opioid portion of drug offenses using "data on the share of drugs seized and tested by forensic laboratories in drug crime investigations reported by the National Forensic Laboratory Information System ("NFLIS").⁵³⁵ Second, to estimate the opioid portion of all other offenses, Cutler relies upon data from the National Survey on Drug Use and Health ("NSDUH") and the reported percentage of Ohio citizens with Opioid Use Disorder ("OUD").⁵³⁶ There are several deficiencies with these data sets.

The NFLIS annually reports on the 60 most frequently identified drugs from drug seizures based on prevalence from the participating state and local laboratories.^{537,538} Therefore, the drugs identified in the NFLIS tables can change each year. From 2007 to 2017 the NFLIS reported on 122 unique drug types and 22 opioid drugs. This inconsistency in both opioid and all drugs reported over time is not addressed by Cutler.

The NSDUH data is a national household survey of approximately 70,000 individuals per year that provides "information on tobacco, alcohol, and drug use, mental health and other health-related issues in the United States."⁵³⁹ Cutler uses the portion of respondents in Ohio with Substance Abuse Disorder that have Opioid Abuse Disorder as a proxy for the share of crimes committed by people who are motivated by opioids.⁵⁴⁰ However, Cutler agrees that not all persons who commit crimes have been diagnosed with Substance Abuse Disorders, and he does not know what percentage of persons who commit a crime have been diagnosed with Substance Abuse Disorder.⁵⁴¹

⁵³⁵ See Cutler Report, p. 20.

⁵³⁶ See Cutler Report, p. 21.

⁵³⁷ There are 12 participating laboratories in Ohio, 2 state and 10 local (see National Forensic Laboratory Information System: NFLIS-Drug 2017 Annual Report, p. 28).

⁵³⁸ See <https://www.nflis.deadiversion.usdoj.gov/DesktopModules/ReportDownloads/Reports/2k17NFLISQA.pdf>

⁵³⁹ See https://nsduhweb.rti.org/respweb/about_nsduh.html

⁵⁴⁰ See deposition of David Cutler dated April 26, 2019, p. 231:10-24.

⁵⁴¹ See deposition of David Cutler dated April 26, 2019, p. 232:6-23.

HIGHLY CONFIDENTIAL

Cutler again ignored county specific data in performing this calculation.⁵⁴² The Summit County Sheriff's Office provides drug seizure data by quantity and street value in its annual reports. This data provides county-specific data regarding opioids and other drugs seized and provides an indication of an Opioid-Related %. The percentage of opioids seized⁵⁴³ per year vary widely from Cutler's calculated Opioid-Related % as seen in Table VI.C-7 below.

Table VI.C-7: Summit County Sheriff Annual Drug Seizures

Comparison of Opioid-Related %	2015	2016	2017
Cutler Opioid-Related % of Crimes	11.5%	11.8%	11.8%
Summit County Sheriff % Opioids Seized	7.1%	4.8%	1.3%

Sources: Cutler Report, Table III.4 and Appendix III.C.2; Sheriff's Office 2015, 2016, and 2017 Annual Reports.

The Cuyahoga County Sheriff's Department also provides information in its annual reports on drug seizures by the Package Interdiction Team, which focuses on intercepting parcels containing illegal contraband.⁵⁴⁴ Cutler failed to consider either population of data as an indication of how often opioids are involved in crimes in the counties.

Additionally, the NIBRS incident data that Cutler relied upon previously provides drug types, which could have been analyzed in relation to the offenses committed. This data could be used to apportion the crime offenses to opioids instead of using multiple deficient state level data sets. If Cutler had used this data, his Opioid % of drug crimes and his overall Opioid-Related % of criminal activity for Summit County would have been considerably lower as seen in Table VI.C-8 below. This calls into questions the reliability of Cutler's chosen data sets.

Consequently, McGuire's affected costs for all divisions that rely on the Opioid-Related % of criminal activity would be overstated.

⁵⁴² Cutler stated that he does not know if the Plaintiffs have crime data that identifies percentages of drugs seized and tested, and has not had conversations with anyone in the respective counties regarding available data (see deposition of David Cutler dated April 26, 2019, pp. 229:3-230:6).

⁵⁴³ The drug seizure data is broken out by prescription and illicit opioids, however, to be consistent in comparison to Cutler's Opioid-Related %, I have included both.

⁵⁴⁴ See Cuyahoga Sheriff's Department 2015 Annual Report, "CCSD Package Interdiction Team" section.

HIGHLY CONFIDENTIAL

Table VI.C-8: Comparison of Cutler's Opioid-Related % of Criminal Activity

Cutler's Reported Opioid Related % of Criminal Activity (using NFLIS and NSDUH)												
Metric	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Drug-Related % of Crimes	28.3%	25.6%	24.9%	29.2%	25.5%	29.0%	29.5%	27.8%	29.6%	32.8%	33.6%	32.3%
Opioid % of Drug Crimes	19.1%	19.7%	26.4%	27.5%	31.0%	31.0%	32.0%	33.2%	33.7%	35.0%	35.2%	36.6%
Opioid-Related % of Crimes	5.4%	5.0%	6.6%	8.0%	7.9%	9.0%	9.4%	9.2%	10.0%	11.5%	11.8%	11.8%

ADJUSTED - Cutler's Opioid Related % of Criminal Activity (using NIBRS)												
Metric	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Drug-Related % of Crimes	14.5%	11.7%	10.0%	15.3%	11.1%	14.8%	15.4%	12.9%	15.4%	18.6%	19.8%	18.5%
Opioid % of Drug Crimes	4.5%	0.0%	3.3%	2.3%	2.1%	3.5%	5.2%	11.1%	11.2%	10.8%	6.3%	9.6%
Opioid-Related % of Crimes	0.7%	0.0%	0.3%	0.3%	0.2%	0.5%	0.8%	1.4%	1.7%	2.0%	1.3%	1.8%

Sources: Cutler Table II.3 and Appendix III.C.3; NIBRS Data produced by Cutler, publicly available at <https://crime-data-explorer.fr.cloud.gov/downloads-and-docs>.

VII. ABATEMENT

Plaintiffs' Abatement Experts⁵⁴⁵ have put forth a variety of prevention and treatment program proposals that they suggest could be implemented to abate the effects of opioid misuse in the United States, Ohio, and Cuyahoga and Summit Counties.⁵⁴⁶ This report takes no position on the efficacy or advisability of the suggested abatement programs. However, I have been asked by counsel to provide an account of the programs that are analogous to Plaintiffs' Abatement Experts' that already exist at the state, county, and city levels in Cuyahoga and Summit Counties.⁵⁴⁷ It is my understanding that analogous federal programs are addressed in the Expert Report of Dr. Gregory Bell (the "Bell Report"), also submitted on May 10, 2019.

I am aware that there are six Plaintiff Abatement Experts, but only two experts⁵⁴⁸ attempt to estimate the costs associated with their abatement proposals in Cuyahoga and Summit Counties. The remaining four experts, Keyes, Lembke, Wexelblatt, and Young do not attempt to

⁵⁴⁵ See G. Caleb Alexander, MD, MS Supplemental Expert Witness Report dated April 3, 2019 ("Alexander Report"); Supplemental Expert Report of Dr. Jeffrey B. Liebman dated April 3, 2019 ("Liebman Report"); Scott L. Wexelblatt, MD Expert Report dated March 25, 2019 ("Wexelblatt Report"); Katherine Keyes Expert Witness Report dated March 24, 2019 ("Keyes Report"); Nancy K. Young, Ph.D. Expert Report dated March 25, 2019 ("Young Report"); and Anna Lembke, MD Expert Report dated March 25, 2019 ("Lembke Report") (collectively, "Plaintiffs' Abatement Experts"). I understand that the Expert Reports of Drs. Ted Miller and Theodore Parran have been withdrawn.

⁵⁴⁶ See Appendix 11 – Abatement Experts Treatment and Prevention Proposals and Programs for a full listing of the abatement proposals put forth by Plaintiffs' Abatement Experts.

⁵⁴⁷ See Appendices 12 – Existing or Proposed Abatement Programs, Cuyahoga County, 13 – Existing or Proposed Abatement Programs, Summit County, and 14 – Existing or Proposed Abatement Programs, State of Ohio.

⁵⁴⁸ See Liebman Report and Alexander Report.

HIGHLY CONFIDENTIAL

quantify the costs associated with their abatement proposals. The proposed programs for these experts are outlined below:

- Keyes provides a synopsis of three abatement programs which includes Medication Assisted Treatment (“MAT”), Naloxone Distribution, and Fentanyl Testing,⁵⁴⁹ all of which already exist in both counties.⁵⁵⁰ Keyes seemingly made no independent effort to verify the need for her proposed abatement programs in the counties.⁵⁵¹
- Lembke proposed a variety of abatement programs that focus on primary prevention, secondary prevention, and treatment.⁵⁵² The primary prevention proposals largely center on the education of the medical profession in addiction treatment.⁵⁵³ Lembke’s secondary prevention proposals deal with harm reduction strategies,⁵⁵⁴ and the treatment proposals focus on expanding infrastructure and providing addiction treatment “within every hospital, clinic, emergency room, jail, drug court, etc., across America.”⁵⁵⁵ Lembke does not appear to evaluate the current programs in place or if they could be implemented in these counties.⁵⁵⁶
- Wexelblatt proposes abatement programs associated with neonatal abstinence syndrome (“NAS”). Wexelblatt details the State of Ohio’s existing efforts “[i]n response to the growing rates of NAS.”⁵⁵⁷ He then offers that “the Counties should develop and enhance multidisciplinary programs and services for early intervention, prevention, and support,” with respect to the “increasing number of women with opioid use disorder in Cuyahoga and Summit Counties, as well as growing incidence

⁵⁴⁹ See Keyes Report, pp. 30-40.

⁵⁵⁰ See Appendices 12 – Existing or Proposed Abatement Programs, Cuyahoga County and 13 – Existing or Proposed Abatement Programs, Summit County.

⁵⁵¹ See deposition of Katherine Keyes dated April 29, 2019 pp. 379:22-380:17 and 386:21-387:8.

⁵⁵² See Lembke Report, para. 89-97.

⁵⁵³ See Lembke Report, pp. 89-93.

⁵⁵⁴ See Lembke Report, pp. 93-95.

⁵⁵⁵ See Lembke Report, para. c.ii.

⁵⁵⁶ See Lembke Report, pp. 89-97.

⁵⁵⁷ See Wexelblatt Report, para. 56-60.

HIGHLY CONFIDENTIAL

of NAS.”⁵⁵⁸ While Wexelblatt outlines the “Rates of NAS in Cuyahoga and Summit Counties,”⁵⁵⁹ he does not purport to calculate the costs borne by the counties with respect to NAS. In addition, during his deposition Wexelblatt acknowledged that roughly seven out of eight infants diagnosed with NAS in Ohio since 2011 were covered by Medicaid.⁵⁶⁰

- Young sets forth “Recommendations” related to two populations: “Infants and their Families with Prenatal Opioid Exposure in Child Welfare and Related County Systems” and “Impact of Families with Opioid Use Disorders in Child Welfare and the Related County Systems.”⁵⁶¹ Young also describes existing “County Initiatives on Parental Opioid and other Substance Use Disorders in Child Welfare.”⁵⁶² Young describes her proposed abatement proposals with no attempt to account for those programs already in effect or proposed, either by the Counties or another entity.

The Alexander Report proposes a ten-year national abatement strategy that covers a variety of programs.⁵⁶³ Alexander acknowledges the complexity of valuing his proposal, noting that “[f]or some categories, specific costs will depend upon decisions made by the Court or its designees, local policy-makers and service providers based on the mix of products and services used in the Counties and the manner in which those products and services are procured.”⁵⁶⁴ Further, Alexander states that his “goal was not to identify the precise costs of any given category, but rather to develop an *initial estimate* from which costs specific to Cuyahoga and Summit County can be developed”⁵⁶⁵ [emphasis added] To that end, Alexander also recognized that “there are a number of limitations in extrapolating from national estimates to specific localities.”⁵⁶⁶ Despite these caveats, Alexander proceeded to use the 2017 opioid

⁵⁵⁸ See Wexelblatt Report, p. 22.

⁵⁵⁹ See Wexelblatt Report, para. 44.

⁵⁶⁰ See deposition of Scott Wexelblatt dated April 24, 2019, pp. 49:9-20.

⁵⁶¹ See Young Report, p. 35-37.

⁵⁶² See Young Report, p. 22-25.

⁵⁶³ See Alexander, para. 177.

⁵⁶⁴ See Alexander, para. 179.

⁵⁶⁵ See Alexander, para. 176.

⁵⁶⁶ See Alexander, para. 180.

HIGHLY CONFIDENTIAL

overdoses as a “proxy for global abatement needs from the epidemic.”⁵⁶⁷ By using a “proxy,” Alexander estimates that Cuyahoga and Summit’s abatement needs for a ten year period is \$ 6.79 billion.⁵⁶⁸ However, Alexander does not purport to identify how these “abatement needs” should be funded.⁵⁶⁹ Alexander does not analyze in detail, nor account for, the current programs already in place in either county. In addition, he does not address which governmental (federal state, county, or city) or private entities would run and fund the proposed abatement programs, including the degree to which the Plaintiff Counties themselves would be the appropriate entities.

The Liebman Report summarizes the Plaintiffs’ proposed abatement programs⁵⁷⁰ and estimates the annual costs of the programs in Cuyahoga and Summit Counties from 2020 to 2034.⁵⁷¹ These proposed abatement costs include costs for people who never used prescription opioids.⁵⁷² Liebman estimates the 15-year cost of providing Plaintiffs’ proposed abatement programs to be between \$4.5 to \$5.5 billion for Cuyahoga County and \$2.0 to \$2.4 billion for Summit County.⁵⁷³ Notably, Liebman does not analyze in detail, nor account for, the current programs in place in either county. In addition, he “does not address how abatement costs should be shared among various entities or parties,”⁵⁷⁴ including the Plaintiff Counties themselves.⁵⁷⁵ For instance, Medicaid reimbursement no longer excludes substance use disorder treatment programs,⁵⁷⁶ which covers a large portion of Liebman’s suggested abatement program additions and costs.⁵⁷⁷

⁵⁶⁷ See Alexander, para. 180.

⁵⁶⁸ See Alexander, para. 180.

⁵⁶⁹ See deposition of Caleb Alexander dated April 26, 2019, pp. 320:23-322:9.

⁵⁷⁰ See Liebman Report, para. 4.

⁵⁷¹ See Liebman Report, para. 94, Table 1 and Table 2, para. 96.

⁵⁷² See Liebman Report, para.16 and footnote 7, and deposition of Jeffrey Liebman dated May 3, 2019, pp. 102:13-103:11.

⁵⁷³ See Liebman Report, para. 94, Table 1 and Table 2, and para. 96.

⁵⁷⁴ See Liebman Report, para. 17, and deposition of Jeffrey Liebman dated May 3, 2019, pp. 139:8-140:10 and 143:22-144:12.

⁵⁷⁵ See deposition of Jeffrey Liebman dated May 3, 2019, p. 303:10-19.

⁵⁷⁶ See Summit County 2019 Operating Budget, p. 45.

⁵⁷⁷ Mr. Liebman estimates treatment costs (excluding MAT) at \$80.5 million per year for Summit County and \$184.2 million per year for Cuyahoga County (see Liebman Report, para 94, Table 1 and Table 2).

HIGHLY CONFIDENTIAL

Neither Alexander nor Liebman link the cost of the abatement programs to the alleged misconduct of the defendants⁵⁷⁸ and ultimately do not calculate damages to the Plaintiffs.

Additionally, I have observed that Plaintiffs' Abatement Experts have largely offered opinions on what successful abatement programs at large should entail. However, Plaintiffs' Abatement Experts failed to identify what resources are already available to residents of each county, whether those resources are or are not adequate, or the extent to which (if any) either county is itself responsible for delivering and/or paying for such proposed services.

In my extensive review of the operating budgets, divisional annual reports, and other publicly available documents in Summit and Cuyahoga Counties, I have observed that many of the proposed programs are already in existence or have been proposed for adoption. Appendices 12 and 13 include a summary of these programs in Cuyahoga and Summit Counties. I have summarized to the extent possible, the various funding sources for the programs in existence today (e.g., county, state, city, grant). From this work, I offer the following additional observations:

The barriers to expansion or adoption of Plaintiffs' proposed programs do not appear to be tied to financial constraints. There are demonstrable instances of unused, allocated budget funds in agencies such as the Summit County ADM Board and Cuyahoga County ADAMHS Board that could be tasked with funding a number of the proposed programs through current service providers.⁵⁷⁹ There are also demonstrable instances of annual carryover funds in these same agencies.⁵⁸⁰ In both cases, I have seen limited evidence of requests to use these counties' funds to expand existing programs or adopt new programs like those suggested by Plaintiffs' experts. More specifically, I have observed instances when funding has been requested to extend certain existing treatment programs, such as Vivitrol programs at the Summit County Community Based Correctional Facility through Oriana House, but the requests have been

⁵⁷⁸ See deposition of Jeffrey Liebman dated May 3, 2019, pp. 63:11-64:24, and deposition of Caleb Alexander dated April 26, 2019, pp. 65:22-68:23.

⁵⁷⁹ See Appendices 6 – Comparison Between Budgeted and Actual Expenditures, Cuyahoga County and 7 – Comparison Between Budgeted and Actual Expenditures, Summit County.

⁵⁸⁰ See SUMMIT_001103655.

HIGHLY CONFIDENTIAL

denied due to other higher priority items versus using reserve funds.⁵⁸¹ I have also seen amounts of unspent ADAMHS contract funds, like St. Vincent Charity, who only spent a fraction (\$2,990 of \$150,000 contract) of the monies allocated to them in their Suboxone contract.⁵⁸²

Moreover, it does not appear that Plaintiffs' experts have taken any measures to account for the feasibility of implementing the suggested programs in Cuyahoga and Summit Counties. For example, county employees have indicated that they have received pushback across the state and county regarding medication-assisted treatment ("MAT") programs for years.⁵⁸³ Other providers believe in an "abstinence-only philosophy"⁵⁸⁴ or that the medication involved is "too dangerous,"⁵⁸⁵ so it has taken multiple attempts over the years to implement medication-assisted treatment in Summit County.⁵⁸⁶ Liebman acknowledged that these are "counties where some of the most prominent abstinence only approaches were founded" and that has historically affected service delivery, but he has not specifically taken that into account.⁵⁸⁷ Additionally, existing programs like the Summit County Turning Point Program⁵⁸⁸ cannot meet their targeted intake of clients causing funds to rollover each year,⁵⁸⁹ so it is unclear how additional services or programs will be filled.

The program costs proposed by Liebman also appear to exceed the amounts currently spent by the counties by many multiples. Plaintiffs' experts' appear to ignore actual evidence of what parallel programs are costing the counties both in total annually and per member served. For substance abuse treatment and MAT programs, Liebman suggests that by 2024 Cuyahoga

⁵⁸¹ See deposition of Anne Connell-Freund dated January 24, 2019, pp. 60:16-61:8 and 62:13-63:24.

⁵⁸² See deposition of Ralph Piatak dated January 14, 2018, Exhibit 18.

⁵⁸³ See deposition of Anne Connell-Freund dated January 24, 2019, pp. 69:15-71:3, and deposition of Molly Leckler dated November 19, 2018, pp. 280:6-281:12.

⁵⁸⁴ See deposition of Anne Connell-Freund dated January 24, 2019, pp. 69:15-70:6.

⁵⁸⁵ See deposition of Shane Barker dated November 28, 2018, Exhibit 9.

⁵⁸⁶ See deposition of Anne Connell-Freund dated January 24, 2019, pp. 72:23-73:11.

⁵⁸⁷ See deposition of Jeffrey Liebman dated May 3, 2019, pp. 319:19-320:8.

⁵⁸⁸ The Turning Point Program is "a special court given the responsibility to handle cases involving drug-using/abusing, non-violent offenders, through immediate comprehensive supervision, drug testing, and treatment services, as well as immediate sanctions and incentives." See <http://www.summitcpcourt.net/Programs/TurningPointProgram/Pages/TurningPoint1.aspx>.

⁵⁸⁹ See deposition of Jennifer Hawkins dated February 28, 2019, pp. 95:22-97:17 and 99:12-20.

HIGHLY CONFIDENTIAL

and Summit County would need \$224.5 million and \$98.0 million per year, respectively⁵⁹⁰ to fully phase in these programs due to what he asserts will be increases in individuals receiving treatment.⁵⁹¹ Liebman's assumptions of the increased population stem from the Lembke Report,⁵⁹² however, Lembke's numbers are not supported by any empirical evidence.⁵⁹³ For Summit County in 2024, Mr. Liebman assumes 2,630 people would receive treatment with 1,754 of those persons receiving MAT.⁵⁹⁴ However, in 2017, there were in fact 1,698 clients⁵⁹⁵ who received opioid-related treatments through current contracted treatment providers which cost the Summit County ADM Board (through local, state, and federal funding) \$6.2 million or approximately \$3,650 per person.⁵⁹⁶ Mr. Liebman's conclusion that the county would need to increase its spending from \$3,600 per person to \$37,000 per person for treatment and MAT^{597,598} annually if it increased the number of persons treated by less than 1,000 is unfounded.

Similarly, in Cuyahoga County, Liebman assumes that there would be 3,033 people with Opioid Use Disorder receiving treatment in 2020 with that population doubling to 6,067 by 2024.⁵⁹⁹ The Cuyahoga County ADAMHS Board spent \$23.3 million in 2017 on 3,232 children, adults, and seniors for addiction treatment and recovery⁶⁰⁰ or approximately \$7,200 per person. This amount includes services for not only treatment and MAT, but also assessment, education,

⁵⁹⁰ See Liebman Report, para 94, Table 1 and Table 2 [Cuyahoga \$224.5 = \$184.2+\$40.3 and Summit \$98.0 = \$80.5+\$17.5].

⁵⁹¹ Mr. Liebman assumes that individuals receiving treatment services (other than MAT) will double by 2024, and those receiving MAT will expand from approximately 7% to 27% by 2024 (see Expert Report of Jeffrey Liebman dated April 3, 2019, para. 42 and 44).

⁵⁹² See Expert Report of Jeffrey Liebman dated April 3, 2019, para. 42 and 44.

⁵⁹³ See deposition of Jeffrey Liebman dated May 3, 2019, pp. 177:14-178:11.

⁵⁹⁴ See Liebman Report, Appendix D, pp. 6 and 8.

⁵⁹⁵ See Report on Opiate Epidemic Impact (SUMMIT_002053751).

⁵⁹⁶ See Report on Opiate Epidemic Impact (SUMMIT_002053751).

⁵⁹⁷ \$37,000 per person = \$224.5 million/6,067 (Cuyahoga County) or \$98.0 million/2,630 (Summit County).

⁵⁹⁸ Liebman's cost appears to also include ongoing costs such as maintenance costs and depreciation costs for the facilities (see deposition of Jeffrey Liebman dated May 3, 2019, pp. 192:22-193:17). The Summit County ADM Board contracts with treatment providers, which does not include maintenance or fixed facility costs.

⁵⁹⁹ See Liebman Report, Appendix D, p. 5.

⁶⁰⁰ See [http://adamhsc.org/pdf_adamhsc/en-US/\(no%20numbers%20version%20for%20website\)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf](http://adamhsc.org/pdf_adamhsc/en-US/(no%20numbers%20version%20for%20website)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf).

HIGHLY CONFIDENTIAL

and prevention for all substance abuse disorders. While this population was not solely opioid-related, Mr. Liebman's assumption that it would cost the county an average of \$37,000 per person for treatment and MAT alone by 2024⁶⁰¹ is unsubstantiated.

To the extent there are additional treatment and MAT programs not funded through ADM or ADAMHS Board, the costs of running these programs often do not fall to the counties, but are provided through independent public health entities, such as Summit County Public Health and the MetroHealth System ("MetroHealth") for Cuyahoga County, and funded by federal or state grants or independent funds.⁶⁰² In Cuyahoga, MetroHealth has focused on "promoting opioid safety through education, advocacy and treatment," specifically through their Office of Opioid Safety.⁶⁰³ MetroHealth is "a legally separate, non-profit organization that provides healthcare and hospitalization to the general public and care for the County's indigents."⁶⁰⁴

Liebman's abatement plan purports to increase continuing capacity for many programs and implement a number of new programs in the counties.⁶⁰⁵ However, it does not appear that Liebman accounted for the current programs in place⁶⁰⁶ or if the counties would need the additional capacity. For instance, Summit County has been experiencing decreased demands for treatment⁶⁰⁷ and wait times for detox and residential treatment have significantly decreased since 2013 as seen in Graphs VII-1 and VII-2 below. Detox wait time in Summit County have recently been reduced to 0 days.

⁶⁰¹ See Liebman Report, Appendix D, pp. 5 and 7.

⁶⁰² See Appendices 12 – Existing or Proposed Abatement Programs, Cuyahoga County, 13 – Existing or Proposed Abatement Programs, Summit County, and 14 – Existing or Proposed Abatement Programs, State of Ohio.

⁶⁰³ See http://opiatecollaborative.cuyahogacounty.us/pdf_OpiateCollaborative/en-US/2018AnnualReport.pdf.

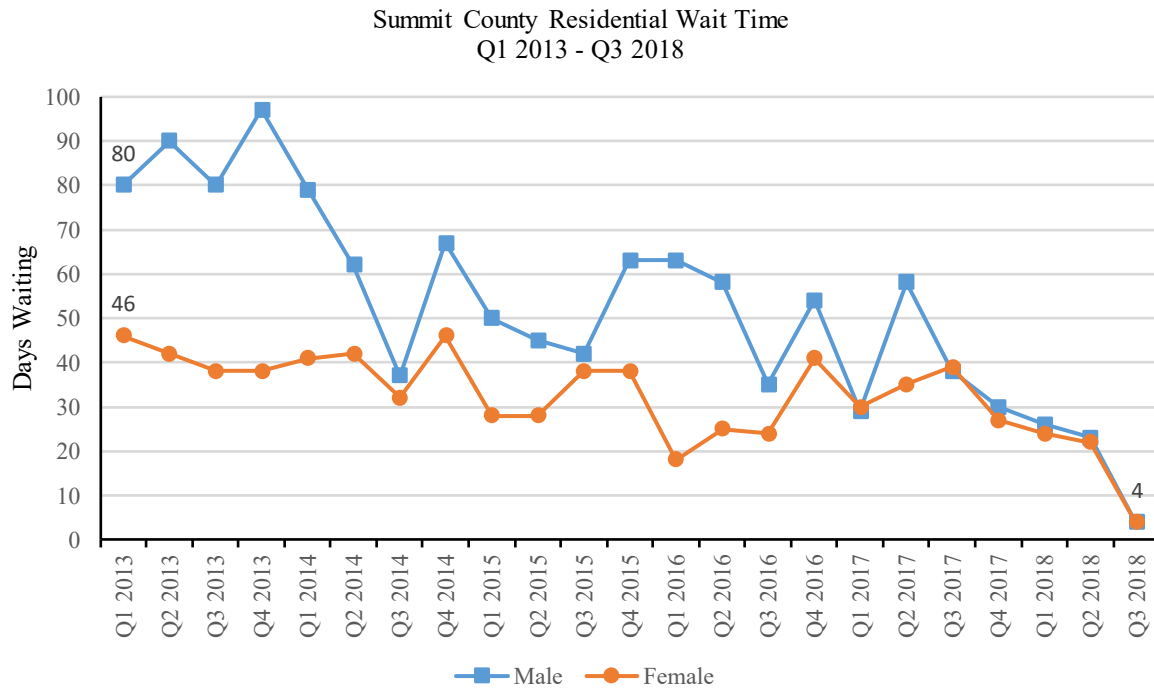
⁶⁰⁴ See Cuyahoga 2017 CAFR, p. 6.

⁶⁰⁵ See deposition of Jeffrey Liebman dated May 3, 2019, pp. 305:10-20 and 323:7-324:14.

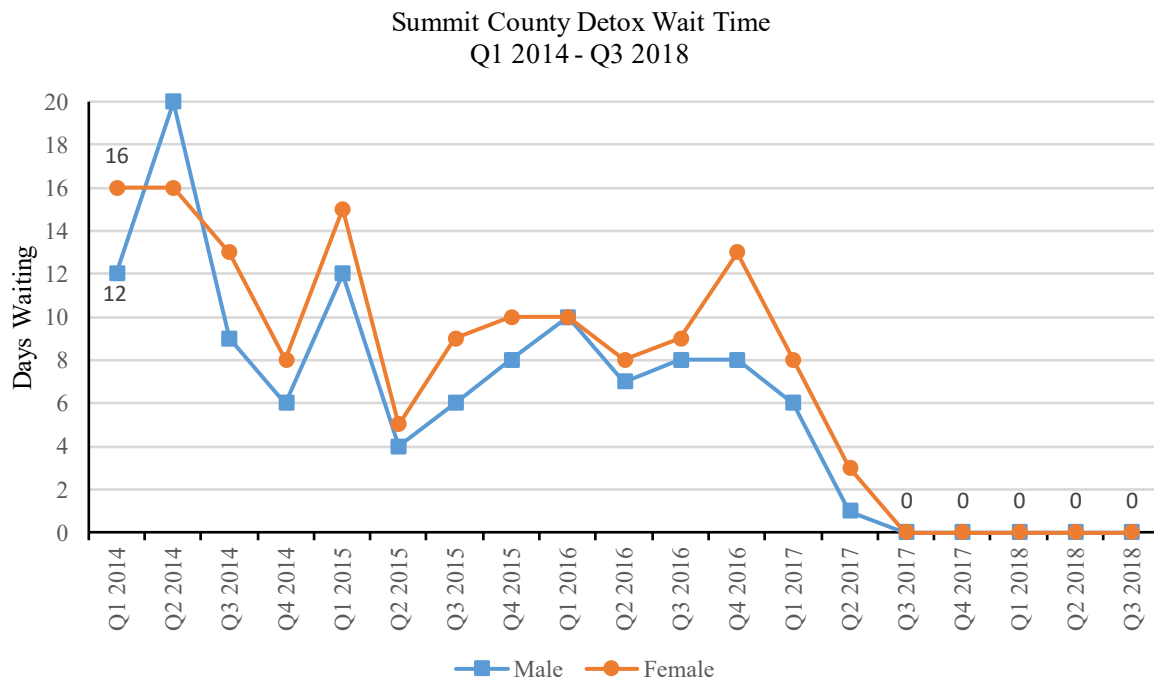
⁶⁰⁶ Liebman did not review claims data regarding actual numbers of persons treated but instead based his cost estimates on a study of facilities in Florida. He did state that he spoke to people from the ADM and ADAMHS boards in Florida about costs. See deposition of Jeffrey Liebman dated May 3, 2019, pp. 160:13-22, 186:8-187:7, and 193:3-17.

⁶⁰⁷ See Liebman Call Interview Notes with Jerry Craig dated July 3, 2018; Alexander Notes RE: Treatment and Recovery with Akron personnel, undated.

HIGHLY CONFIDENTIAL

Graph VII-1: Summit County Residential Wait Time

Sources: Summit County Opiate Task Force Quarterly Stakeholders Meetings March 9, 2016, December 13, 2017, and December 17, 2018.

Graph VII-2: Summit County Detox Wait Time

Sources: Summit County Opiate Task Force Quarterly Stakeholders Meetings March 9, 2016, December 13, 2017, and December 17, 2018.

HIGHLY CONFIDENTIAL

In addition to treatment services, both counties provide a multitude of other programs including, but not limited to, providing the community with naloxone kits, fentanyl test strips, and syringe exchange programs, education resources through media campaigns and school programs, and drug disposal programs.⁶⁰⁸ Several county employees have testified that anyone who wants Narcan gets it,⁶⁰⁹ and they have never run out of kits to distribute.⁶¹⁰ This availability of Naloxone and the proactive approaches already taken by the community may have had an impact on the lower number of overdose deaths being observed in Summit County, stated by Jerry Craig, Executive Director of the ADM Board.^{611,612} This decline in overdose deaths has also been reported in local media with Jerry Craig being quoted as stating “I think we’re on the waning end of the opiate crisis.”⁶¹³ Additionally, the Quick Response Teams (which visit the homes of individuals that have overdosed on opioids) are being repurposed to address other issues as there are less people to visit.⁶¹⁴ Liebman does not appear to take any of these ongoing programs into consideration in his proposed Abatement Plan.

It is unclear how the Plaintiffs intend to utilize the abatement calculations described above. None of the experts describe these calculations as damages, and Alexander specifically notes that, “Ultimately, detailed assessments of the specific costs...will be required, and there are a number of limitations in extrapolating from national estimates to specific locations.”⁶¹⁵ However, to the extent that Plaintiffs intend to present these calculations, or a subset thereof, as damages, I note the following:

⁶⁰⁸ See Appendices 12 – Existing or Proposed Abatement Programs, Cuyahoga County and 13 – Existing or Proposed Abatement Programs, Summit County.

⁶⁰⁹ See deposition of Matt Baepler dated January 17, 2019, pp. 136:7-15 and 161:8-14, and deposition of Gary Gingell dated November 20, 2018, p. 177:3-18.

⁶¹⁰ See deposition of Donna Skoda dated August 14, 2018, p. 57:22-25.

⁶¹¹ See Liebman Call Interview Notes with Jerry Craig dated July 3, 2018.

⁶¹² Personnel in the police force have also testified that overdose deaths have declined (see deposition of Matt Baepler dated January 17, 2019, pp. 135:22-136:19, and Alexander Notes RE: Treatment and Recovery with Akron personnel, undated).

⁶¹³ See “Drug Deaths Plunge in Summit; County Task Force says Number of Overdoses Fell in 2018.” Akron Beacon Journal (Ohio), January 12, 2019.

⁶¹⁴ See Liebman Call Interview Notes with Jerry Craig dated July 3, 2018.

⁶¹⁵ See Alexander report, para. 180.

HIGHLY CONFIDENTIAL

As previously discussed, many of the programs identified by the Plaintiffs' Abatement Experts are already being provided within the normal provision of services.⁶¹⁶ None of the experts have attempted to assess the relative contribution of already existing programs and then identify the additional costs that, in their opinion, would be necessary. Similarly, none of the experts have provided evidence of individuals in the two counties who are seeking treatment through county services and are failing to receive it because of either the non-existence of programs or a lack of capacity in existing programs. As such, none of the calculations, as presented, are appropriate damages calculations.

Further, the costs identified by the Plaintiffs' experts are not and would not be specifically borne by the counties. They are, and would be, paid for by a variety of funding sources, including state, federal, and private sources. Any damages calculation that is not specific to the Plaintiffs should be rejected.

Further, the need to isolate the impact of the alleged improper conduct from other conduct and causes is well established. One often cited treatise on the study of economic damages is the *Litigation Services Handbook, the Role of the Financial Expert*. It states: "[i]f a damages analysis includes the effects not caused by the defendant, it is a defective analysis. It has not followed the standard format for damages, which, by its nature, isolates the effects of the harmful act on the plaintiff."⁶¹⁷ It also states that "[a]ll courts, however, require that defendants wrongful conduct cause the damages allegedly suffered by the plaintiffs."^{618,619} Neither of the calculations performed by Alexander or Liebman attempt to isolate the incremental costs to the counties associated with the specified programs or limit the costs to those that may be been caused by prescription opioids (e.g., includes costs for treating OUD for persons that have never

⁶¹⁶ See Liebman Report, para 92, and Appendices 12 – Existing or Proposed Abatement Programs, Cuyahoga County and 13 – Existing or Proposed Abatement Programs, Summit County.

⁶¹⁷ See Weil, R., Wagner, M. and Frank, P. *Litigation Services Handbook*. 3rd Edition, 2001, Section 5.3 "Issues Common to Most Damages Studies."

⁶¹⁸ See Weil, R., Lentz, D. and Evans, E. *Litigation Services Handbook*. 6th Edition, 2017, Section 4.2 "Fundamentals of Causation."

⁶¹⁹ Liebman states that he is not offering an "opinion regarding cause of what you refer to as the crisis" nor an opinion "regarding the conduct of any particular defendant." See deposition of Jeffrey Liebman dated May 3, 2019, pp. 63:11-64:2 and 64:11-24.

HIGHLY CONFIDENTIAL

taken a prescription opioid). As a result, it is my opinion that all of the Plaintiffs' Abatement Experts that have failed to provide a reliable or reasonably certain abatement damage estimate.

HIGHLY CONFIDENTIAL

* * *

My opinions are based on the information available to me as of the date of this report. I reserve the right to supplement my opinions based on any additional information obtained that I may be asked to consider or any additional work or analysis that I may be asked to perform prior to or at any hearing, including deposition or trial. I may supplement and update this report as appropriate based on the results of review procedures and/or additional information that may become available. Such additional information includes, without limitation, testimony of Plaintiffs' expert witness Dr. McCann, which was not completed in time to be considered for the purposes of this report and any upcoming deposition testimony of Plaintiffs' expert witnesses. If asked to offer testimony at trial, I may use documents produced in this litigation that refer to or relate to the matters discussed in my report as exhibits. In addition, I respectfully reserve the right to use animations, demonstratives, enlargements, or any other enhancement in kind of the tables or graphs presented in my report or other information that illustrate my opinions.



Matthew G. Bialecki, CPA, CFF, CGMA

Dated: May 10, 2019

HIGHLY CONFIDENTIAL

Appendix 1



Alvarez & Marsal
Disputes and Investigations, LLC
 540 West Madison Street – Suite 1800
 Chicago, IL 60661
 Phone: +1 312 601 4220
 Fax: +1 312 332 4599

Matthew G. Bialecki, CPA, CFF, CGMA
Managing Director, U.S. Eastern Region Leader
mbialecki@alvarezandmarsal.com

Certifications

Certified Public
Accountant

AICPA Certified in
Financial Forensics

Chartered Global
Management Accountant

Professional Affiliations

American Institute of
Certified Public
Accountants

Association of Certified
Fraud Examiners

Illinois Society of Certified
Public Accountants

Member of the AICPA
Taskforce on Merger and
Acquisition Disputes

Education

Bachelor of Business
Administration,
Accounting

Loyola University of
Chicago

Mr. Bialecki is a Managing Director of Alvarez & Marsal Disputes and Investigations, LLC in Chicago and leads the Disputes and Investigations Eastern U.S. Region. He is also a member of the Disputes and Investigations Global Executive Committee. He has 25 years' experience as an expert witness, arbitrator and consultant in a variety of areas including litigation, fraud and forensic investigations. He specializes in post-acquisition disputes, disputes with complex financial issues, and financial investigations.

Mr. Bialecki has consulted or testified on issues involving the proper application of Generally Accepted Accounting Principles (GAAP), International Financial Reporting Standards (IFRS), Statutory Accounting Principles (SAP) set forth by the National Association of Insurance Commissioners (NAIC), and Generally Accepted Auditing Standards (GAAS). He has also consulted to buyers, sellers or served as a neutral arbitrator in many post-acquisition purchase price disputes.

Prior to joining A&M, Mr. Bialecki was a Partner with a Big Four public accounting firm in Chicago. While with this firm, he was the Midwest and North Central Regions' Professional Practice Director, the Midwest Insurance Industry Leader, and the Midwest Insurance Industry Fraud Specialist for the Forensic and Dispute practice. He was the fraud specialist on the audits of Allstate, Berkshire Hathaway, CNA Financial, CNA Surety, Cuna Mutual and The Hartford.

Representative Experience

Litigation/Arbitration/Mediation/Forensic Investigations

- Government Contractor/Engineering and Construction Firm – Purchase Price Dispute Arbitration - Assisted one of the nation's largest engineering and construction firms with a Purchase Price Dispute Arbitration of over \$600 million. Our work involved the analysis of an extensive amount of supporting data, including analysis of numerous, large construction projects in various stages of completion to determine proper percentage-of-completion accounting. Based on the information available at the time of the review, the results of this review indicated that the accounting for numerous long-term contracts required substantial adjustment.
- Private Equity/Construction Company – Post-Acquisition Dispute – Expert witness for a private equity client that purchased a construction company and discovered after the purchase that the revenue was overstated and expenses were understated on a number of ongoing long-term construction projects under percentage-of-completion accounting. We conducted a forensic investigation to determine how the projects should have been accounted for and served as an expert witness on the accounting issues and damages in the litigation involving indemnification because of an alleged breach of representations and warranties under the purchase agreement.
- Government Contractor – Purchase Price Dispute Arbitration and Breach of Representations and Warranties Litigation – Assisted a publicly traded manufacturer and government contractor with respect to certain post-acquisition disputes. The manufacturer had recently acquired a business unit of another publicly traded government contractor, and disputes arose regarding the calculation of net working

Note: Alvarez & Marsal employs CPAs but it is not a licensed CPA firm

capital and the accuracy of the seller's accounting for certain long-term fixed fee contracts under the percentage-of-completion revenue recognition methodology prior to the acquisition. A&M helped prepare the manufacturer's arbitration submission and provided litigation support regarding certain fraud and breaches of representations and warranties claims.

- Software Firm – Earn-Out Dispute Arbitration – Assisted the buyer in an Earn-Out Dispute Arbitration involving the calculation of post-acquisition revenues in multi-element arrangements for a business that provides software solutions for managing employee safety, health safety, and environmental compliance. The earn-out dispute involved the recognition of revenues associated with multi-element arrangements including set-up fees, training, and customer discounts and whether there was Vendor Specific Objective Evidence (VSOE) to support revenue recognition. Further, the dispute involved whether the buyer had violated earn-out covenants regarding the way it managed the business after the acquisition.
- Software Development Company – Earn-out Dispute - Expert for the buyer in an earn-out dispute. The dispute involved the calculation of a two year earn-out based on revenues. The seller alleged that the buyer failed to act in accordance with the purchase agreement by operating the business out of the ordinary course by failing to maximize revenues through changes in accounting for long term services contracts subject to the earn-out and failed to account for other revenue properly under multi-element arrangements and long term contracts. The matter involved assessing whether there was Vendor Specific Objective Evidence (VSOE) for recognition of certain revenue.
- Major Telecommunications Company – Restatement – Engaged by a leading, global, telecommunications provider to provide subject matter expertise, resolve technical accounting issues, and provide accurate financial restatements for several years of financial results as part of a bankruptcy emergence process. We analyzed specific large contracts and transactions to determine the appropriateness of revenue recognition. Issues included analysis of revenue recognition in long-term contracts, treatment of revenue as gross vs. net, government contracts and fees, discounts and adjustments in contracts, legal settlements, and fair value of services.
- Computer Communications Equipment Company – Internal and SEC Investigation – Investigated accounting irregularities at a publicly held computer communications equipment company and assisted the company with its response to a formal SEC investigation into its accounting practices and its large financial restatement. Many of the issues involved the proper recognition of revenue included in multi-element arrangements.
- Large Manufacturing Companies - Purchase Price Dispute Arbitration – Neutral arbitrator in a Purchase Price Dispute Arbitration involving the sale of a large manufacturing company. The dispute involved accounting for reserve for doubtful accounts, reserves for obsolete and excess inventory, consignment inventory, accrued expenses, accrued litigation costs, accrued vacation, accrued warranty expense, contingent losses, deferred revenue and accrued bonus expense.
- Large Health Care Entities – Purchase Price Dispute Arbitration – Neutral arbitrator in a Purchase Price Dispute Arbitration involving the working capital calculation relating to the sale of a business unit that operated long-term acute care hospitals. The working capital dispute involved the calculation of patient accounts receivable, prepaid deposits with medical suppliers, bonus accruals, other accrued expenses, and income taxes payable.

- Large Automotive Supplier – Purchase Price Dispute Arbitration – Provided neutral arbitration services in a Purchase Price Dispute Arbitration involving the sale of an automotive supplier.
- Global Travel Companies – Purchase Price Dispute Arbitration – Neutral arbitrator in a Purchase Price Dispute Arbitration involving the sale of a large travel company. The dispute involved the accounting for certain transaction bonuses and their effect on taxable income.
- Large Manufacturing Companies - Purchase Price Dispute Arbitration – Neutral arbitrator in a Purchase Price Dispute Arbitration involving the sale of a large manufacturing company. The dispute involved accounting for depreciation, intercompany payables and receivables, rebates and sales allowances.
- Large Agricultural Company – Purchase Price Dispute Arbitration – Provided neutral arbitration services in a Purchase Price Dispute Arbitration involving the sale of a large agricultural company. The dispute involved the accounting for marketing development funds, accounts receivable cut-off and severance pay.
- Large Food Company – Purchase Price Dispute Arbitration – Provided neutral arbitration services in a Purchase Price Dispute Arbitration involving the sale of a subsidiary of a large food company. The dispute involved the accounting for rebates to customers, alleged overstatement of accounts receivable, and severance pay under an employment agreement.
- Health Care – Purchase Price Dispute Arbitration - Provided neutral arbitration services in a Purchase Price Dispute Arbitration involving the sale of an orthopedic medical practice. The disputed items in this matter related to accounts receivable, prepaid expenses and fees payable from the purchaser to the seller.
- Tool Manufacturer – Purchase Price Dispute Arbitration – Provided neutral arbitration services in a Purchase Price Dispute Arbitration involving the accounting for pre-paid expenses, uncollectible receivables, liabilities not assumed and employee benefits.
- Baking Operation – Purchase Price Dispute Arbitration – Provided neutral arbitration services in a matter involving the sale of a large baking operation. The dispute involved the accounting for freight accruals and customer promotions and allowances.
- Large Oil and Gas Company – Purchase Price Dispute Arbitration – Assisted a newly formed entity created from a spinoff transaction resulting from the sale of a large publicly traded oil and gas company to another large publicly traded oil and gas company. The spinoff transaction resulted in a Purchase Price Dispute Arbitration involving a working capital calculation regarding liabilities assumed by the newly formed entity. Specifically the working capital dispute involved liabilities assumed by the newly formed entity regarding long-term contracts to provide services to third-party investors, undistributed profits to third-party investors, intercompany payments made by the newly formed company on behalf of the acquired company, and other accrued liabilities.
- Engine Manufacturing Company - Purchase Price Dispute Arbitration – Expert in a Purchase Price Dispute Arbitration involving the sale of the engine division of a manufacturing company. The dispute involved accounting for accounts receivable and reserves for doubtful accounts, intercompany payables and receivables, obsolete and slow moving inventory and rebates and sales allowances.
- Manufacturer of Greeting Cards - Purchase Price Dispute Arbitration – Assisted the seller in a matter involving the sale of a subsidiary of a greetings card company. The dispute involved the accounting for accounts receivable, including credits and returns

allowances, reserves for modular changes, reserve on contingent inventory, excess and obsolete inventory, vacation accrual, workers' compensation, and contingent losses.

- Overseas Dairy Operation – Purchase Price Dispute Arbitration – Consulted in this matter where the disputed items included the accounting for subsidiary debt, application of ownership percentages, treatment of deferred revenues, and cash balances used in the calculation of the purchase price.
- Heavy Equipment Distributors – Purchase Price Dispute Arbitration - Consulted in a purchase price arbitration between two heavy equipment distributors. The disputed items involved reserve for bad debt; valuations of inventory, land, and buildings; and the capitalization of costs.
- Automotive Supplier – Post-Acquisition Dispute – Assisted the seller of a large automotive supplier on a post-acquisition dispute involving the proper accounting for capital and operating leases.
- Large Private Equity Firm – Purchase Price Dispute Arbitration – Assisted the seller in a Purchase Price Dispute Arbitration involving the working capital calculation relating to the sale of a business that manufactured, marketed and distributed plastic containers. The working capital dispute involved the accounting treatment, calculation, and classification of deferred revenues associated with long-term customer contracts, prepaid inventory and operating supplies, accounts receivable and associated reserves and taxes payable.
- Large Private Equity Firm/ Over the Counter Pharmaceutical Company – Purchase Price Dispute Arbitration and Breach of Representations and Warranties Litigation – Assisted the seller of a business that marketed and distributed brand name consumer pharmaceutical products in the over-the-counter healthcare segment. The disputes involved accounting for allowances for co-op advertising with respect to customer contracts, volume rebates provided to customers, obsolete and excess inventory reserves, inventory physical count adjustments, accrued expenses, accounts payable, accrued coupon liabilities, recall contingencies, waste disposal liabilities, litigation contingencies and franchise tax issues.
- Health Care Companies – Purchase Price Dispute Arbitration – Assisted the seller in a Purchase Price Dispute Arbitration involving the sale of a large health care company. The dispute involves the accounting for accruals for stock options.
- Multinational Corporations – Purchase Price Dispute Arbitration - Consulted in a Purchase Price Dispute Arbitration between two multinational corporations. The disputed items were well over \$100 million and involved deferred taxes both in the U.S. and overseas, research and development costs, valuation of fixed assets, foreign currency translations, environmental liabilities, warranty reserves, sales of discontinued operations, accounting for leases and accounting for pensions.
- Large University/Global Pharmaceutical Company – Royalty Dispute - Expert witness in a matter on behalf of a large public university against a global pharmaceutical company in a dispute involving the payment of royalties under a global license agreement. This matter involved the treatment of rebates in the calculation of the royalty payments.
- Large Insurance Companies – Coverage Dispute - Expert in this matter for two large insurance companies in a dispute with an insured over coverage for costs relating to an SEC investigation and a subsequent restatement.

- Big 4 Accounting Firm – Accountant's Liability at Life Insurance Company – Assisted a Big 4 accounting firm in an accountant's liability matter. It was alleged that the auditors failed to alert regulators of a large insurance company of going concern issues at the parent of the insurance company.
- Health Care – Forensic Investigation/Purchase Price Dispute/Indemnification Litigation Currently engaged as an expert witness by a large health care entity that acquired another health care company. Shortly after the purchase, the purchaser discovered fraudulent financial statement entries and potential Medicare/Medicaid fraud, revenue recognition issues, accounts receivable and EBITDA.
- Wine Production and Distribution – Shareholder Dispute – Assisted in a shareholder dispute involving a large family owned company that owned and managed vineyards and wineries, imported, exported, marketed and sold wine.
- Aerospace Company – Lost Profits and Antitrust Damages - Assisted in defending a patent damages claim for an aerospace company and prepared a counterclaim alleging antitrust damages.
- Auto Manufacturer – Breach of Contract – Assisted a large U.S. auto manufacturer against a NASCAR racing team in a breach of contract claim involving a sponsorship agreement. Damages included the return of a portion of the sponsorship fee and recovery of certain development costs incurred as part of the agreement.
- Auto Manufacturer – Dealer Terminations – Expert witness for a large U.S. auto manufacturer in several AAA arbitrations to analyze financial performance of terminated dealerships.
- Specialty Chemicals Manufacturer – Lost Profits - Breach of Technology License Agreement – Expert in the matter involving lost profits as a result of an alleged breach of a technology license agreement for the manufacture and distribution of specialty chemicals in Singapore, Indonesia and Malaysia.
- Finance and Leasing Company – Lost Profits - Breach of Contract - Assisted a Fortune 500 company in a dispute involving lost profits and other damages due to the defective conversion of 747 airplanes from passenger planes to cargo freighters. The analysis involved determining lost cargo shipping revenue and determining operating costs and long term maintenance costs (including costs for A, B, C and D checks) for the aircraft.
- Real Estate Holding Company – Breach of Contract, Wrongful Interference and Termination – Assisted the board of directors of a business that owns, purchases, develops, leases, markets, constructs and sells real estate property in an action by one of its terminated executives alleging wrongful termination, breach of his employment contracts and wrongful interference. The matter included analyzing the business' complicated ownership and control structure including many agreements, public investors and limited partners. It was alleged that the company improperly liquidated assets and made improper distributions to investors. We assisted in determining the proper payouts under the agreements and under the executives' employment agreements which were related to several of the real estate transactions and partnership agreements.
- Real Estate Developer – Lost Profits - Breach of Contract – Expert in this matter involving lost profits as a result of delays allegedly caused by a subcontractor. The property involved was a complex that contained apartment rental units, assisted living units, single family homes, town homes and retail space.
- Public Utility – Breach of Contract – Consulted on this matter adverse to a coal mining operation involving a breach of contracts to provide coal to a public electricity supplier.

Issues involved damages related to the breach and the ability of the coal supplier to pay a judgment if obtained. Our work included analysis of financial information of the coal mining operation.

- Manufacturer of Asbestos Products - Fraudulent Conveyance – Provided consulting services to the creditor's committee in a matter involving allegations of fraudulent conveyance of assets by a company that was insolvent prior to the transfers taking place because of unrecorded asbestos liabilities.
- Fast Food Company – Copyright infringement - Assisted the plaintiff in a copyright infringement claim against a large fast food company.
- Manufacturer of Bedding Products – Lost Profits and Accelerated Re-Entry Damages - Assisted the plaintiff claiming lost profits and accelerated re-entry damages involving patents on bedding products.
- US Federal Government Agency – Lost Earnings Damages - Testified at deposition regarding lost profits in a case involving wrongful termination.
- Gaming Product Manufacturer – Lost Profits Damages - Prepared large database for use in calculation of damages in a dispute involving lost profits for patent infringement. The database consisted of several million records, which were manipulated to extract relevant data, the data was tested for integrity, and then the information gathered was used to calculate lost profits.
- Big 4 Accounting Firm – Accountant's Liability – Assisted a Big 4 accounting firm in its defense regarding an accountant's liability matter. The plaintiff alleged that the auditors failed to detect fraud which resulted in the material misstatement of their client's financial statements. The main issue in this case involved the accounting for revenue recognition in bill and hold transactions.
- Large Accounting Firm – Accountant's Liability – Assisted in a large accounting firm in its defense regarding an accountant's liability matter. The plaintiff alleged that the auditors failed to detect an embezzlement from a client's 401(k) plan. We analyzed whether the audit was done in compliance with Generally Accepted Auditing Standards.
- Banking – RTC Investigations – Worked on various investigations of bank failures involving the Resolution Trust Corporation.
- Brand Imaging Company – Investigation – Engaged to assist a company in determining whether certain acquisition costs were properly expensed or capitalized.
- Government Contractor – Internal Investigation - Investigated certain suspicious transactions performed by the CFO of a government contractor and additional suspicious transactions. We analyzed the contractor's sources and uses of cash, reviewed journal entries, searched the CFO's office and computer, and interviewed witnesses as well as the suspect. The team's findings revealed the CFO was writing checks and recording journal entries between the parent company to adjust the subsidiary's books in order to be in compliance with loan covenants. The team reported its findings to the Board of Directors.
- Native American Casino – Internal Investigation - Performed a fraud investigation for a large Native American casino operation to determine why a large increase in revenue did not create a proportional increase in profits. Our work included reconciliations of various general ledger accounts, slot volatility analysis and analysis of customer player patterns and review of various internal controls.
- Manufacturer and Marketer of Sporting Goods – Internal Investigation - Assisted in the investigation of possible accounting irregularities at a manufacturer and marketer of

sporting goods. We conducted interviews and analyzed certain accounting information, including account reconciliations and non-standard journal entries. Events or circumstances that led to the accounting irregularities included an incomplete systems implementation, inaccurate processing of accounting information, and poor internal accounting controls.

- Automobile Manufacturer – Fraud Investigation - Performed a claim analysis and a fraud investigation in a large class action lawsuit on behalf of a U.S. automobile manufacturer. We worked with the manufacturer's claims processing center to test legitimacy of claims and investigate fraudulent claims.
- Major Bank – Fraud and Breach of Contract in Real Estate Transaction – Assisted the plaintiff in a matter which involved damages resulting from the defendant's alleged scheme to enter into a real estate transaction that benefited the defendant to the detriment of the plaintiff. We performed a retrospective valuation of the real estate asset involved and opined on the damages to the plaintiff as a result of the sale of the building.
- Regional Bank – Fraud and Breach of Contract – Consultant for a regional bank in a matter involving losses that the bank suffered on several commercial loans. We assisted the bank in evaluating whether the loans were reviewed in accordance with the bank's underwriting and professional standards. We also investigated the reasons for the failure of the loans including fraudulent financial statements and forged audit opinions.
- Major Bank – Lost Profits - Breach of Contract - Assisted the defendant in a case, in which the owners of a shopping center complex alleged that they were damaged when the defendant sublet their space in the shopping center to another bank. The plaintiff alleged that the loss of the defendant's name at the center of the property resulted in a reduction of foot traffic at the site and therefore, affected the plaintiff's ability to market space at the center. We were engaged to rebut the damage calculation set forth by a series of experts presented by the plaintiff.
- Agricultural Equipment Manufacturer – Lost Profits, Reasonable Royalty and Conveyed Sales Damages - Prepared a patent damages claim involving lost profits, reasonable royalty, conveyed sales, and prejudgment interest for an agricultural equipment manufacturer.
- Car Alarm OEM – Lost Profits and Reasonable Royalty - Assisted with the damage calculation in a plaintiff's claim for lost profits and reasonable royalties resulting from patent infringement of a major auto alarm manufacturer.
- Auto Manufacturer Car Alarm OEM – Lost Profits and Reasonable Royalty - Assisted defending lost profit and reasonable royalty claims resulting from patent infringement for major auto alarm manufacturer.
- Manufacturer of Insulated Products – Lost Profits, Reasonable Royalty and Disgorgement Damages - Assisted the plaintiff in a claim involving unjust enrichment under design patent claim; lost profits, reasonable royalty, and disgorgement under trade dress claim; and lost profits and reasonable royalty under process patent claim on behalf of a manufacturer of insulated products.
- Fortune 100 Companies – Lost Profits, Reasonable Royalty and Accelerated Re-entry Damages - Assisted plaintiff claiming lost profits, reasonable royalty, and future lost profits from accelerated re-entry involving two Fortune 100 companies in this patent infringement matter.

- Insurance Company – Coverage Dispute – Assisted one of the insurance companies involved in the NCAA Concussion cases with assessing and allocating the settlement of the matter to the insurance coverage available by policy year to multiple insurance companies. We also assisted in analyzing the damage models prepared by the opposing parties' expert and provided calculations based on various assumed scenarios to determine potential exposure.
- Major Insurance Company – Coverage Dispute – Expert in this matter involving coverage for a loss at a foreign pharmaceutical manufacturer.
- Large Life Insurance Company – Technical Accounting – Engaged by a large hedge fund as a consultant on technical accounting matters in its acquisition of a large life insurance company. Issues involved included the conversion of several years of financial statements from IFRS to GAAP, accounting for complex onshore and offshore reinsurance agreements, determining the treatment of intercompany account balances, technical analysis of GAAP and statutory accounting issues, determining the effects of transactions on statutory risk based capital, pro forma financial statement creation, analysis of post-acquisition adjustments and purchase accounting issues.
- Major Life Insurance Company – Damages and Technical Accounting – Expert for the insurance company in this class action matter alleging \$3 billion in damages for alleged miscalculations in its compliance with the limitation on retained surplus set forth in Section 141 of Chapter 175 of the General Laws of Massachusetts.
- Large Life Insurance Company – Class Action – Breach of Contract, Fraud and Alter Ego – Assisted in a matter in which the plaintiffs' sought injunctive declaratory and monetary relief for cost of insurance increases and punitive damages for alleged intentional and egregious misconduct. We were asked to opine on the regulatory and industry norms regarding particular types of life insurance policies and also on the potential alter ego relationship between the parent and subsidiary life insurance companies.
- Insurance Broker – Breach of Contract – Provided consulting services in this matter which involved the alleged breach of contract because of the inadvertent disclosure of information by the defendant, a global insurance broker. Assisted in analyzing a significant amount of financial information provided by the plaintiff to determine if the plaintiff was responsive to discovery requests and also to put the large amount of data into a form that was usable by the attorneys involved in the case.
- Major Insurance Company – Asbestos Class Action – Assisted a major insurance company in an arbitration in which the insured was seeking well over \$1 billion in indemnity payments for asbestos-related bodily injury claims. The insured was seeking indemnity payments for alleged "non-products" claims to third parties under its comprehensive general liability policies. We reviewed the report of the expert for the insured in order to assess allocations made between "products" and "non-products" claims, as well as to assess the validity of other assumptions made and conclusions reached.
- Major Insurance Company – Asbestos – Provided consulting services to a major insurance company prior to litigation on an issue involving a bankrupt asbestos products company. The insured sought indemnity payments for asbestos-related bodily injury claims under its comprehensive general liability policies. We analyzed the value of alleged "non-products" claims and evaluated asbestos liability estimates prepared by experts to determine the potential exposure to our client.
- Large Fast Food Restaurant Chain – Class Action Wage and Hour Matter – Accounting expert in a company-wide wage and hour class action against a large pizza company.

- Petroleum Companies – Breach of Contract - Assisted on a claim between two large petroleum companies to evaluate the effects of certain events that occurred in connection with the alleged breach of a right of first refusal contract. Issues involved the “substance over form” interpretation of a lease transaction.
- Health Care – Internal Investigation and Restatement - Engaged by the audit committee of the board of directors of a national provider of health care services with 35 hospitals to conduct an independent review of accounting practices at one of its large regional subsidiaries. We investigated and identified deficiencies in the subsidiary’s accounting practices between its provider system and its health plan and as a result of our investigation, the company prepared a restatement of its previously released financial statements.
- National Health Care Corporation – Fraudulent Conveyance and Alter Ego – Assisted plaintiffs who sought to avoid and recover certain transfers and obligations related to the sale of two hospitals because they alleged that the sales were fraudulent conveyances. We calculated the retrospective values of the hospitals and analyzed the alter ego relationship between the hospitals’ parents and their subsidiaries.

Business Insurance Consulting

- Grocery Store Chain – Hurricane Damage - Prepared an insurance claim on behalf of a chain of grocery stores in Puerto Rico for lost profits and property damage suffered as a result of a hurricane.
- Aluminum Smelting Plant – Wildcat Strike - Prepared an insurance claim on behalf of an aluminum smelting plant for lost profits and property damage suffered as a result of a wildcat strike.
- Financial Services – 9/11 Losses – Prepared an insurance claim on behalf of a large financial services firm for property damage, business interruption and extra expenses as a result of the September 11, 2001 attacks on the World Trade Center.

Other

- Forensic Audit Assist – Assigned as the fraud specialist for Midwest audit clients in the areas of Insurance, Distribution, Manufacturing and a holding company.
- Law Firm – Preference Payment in Bankruptcy - Assisted in defending a claim in bankruptcy alleging a preferential payment from an airline to a law firm.

Testimony for the Last Four Years

- Cinedigm Corp. v. Gaiam, Private Accounting Arbitration, Arbitration Hearing Testimony on behalf of Gaiam, Inc., 2015.
- North Venture Partners, LLC v. Vocus, Inc., United States District Court, Northern District of California, Deposition Testimony on behalf of Vocus, Inc., 2015.
- Arbitration Re: Harris Corporation/Imagine Communications, Private Accounting Arbitration, Arbitration Hearing Testimony on behalf of Harris Corporation, 2015.
- North Venture Partners, LLC v. Vocus, Inc., United States District Court, Northern District of California, Special Master Hearing Testimony on behalf of Vocus, Inc., 2015.

- Ticor Title Insurance Company v. RNB Title LLC, et al., Circuit Court of Cook County, Deposition Testimony on behalf of Ticor Title Insurance Company, 2016.
- Karen L. Bacchi, Individually and on Behalf of all Persons Similarly Situated v. Massachusetts Mutual Life Insurance Company, United States District Court, District of Massachusetts, Deposition Testimony on behalf of Massachusetts Mutual Life Insurance Company, 2016.
- Marlin Management Company, LLC, et al. v. Inventus Power, Inc. f/k/a ICC-Nexergy, Inc., American Arbitration Association, Deposition and Arbitration Hearing Testimony on behalf of Marlin Management Company, LLC, 2016.
- North Venture Partners, LLC v. Vocus, Inc., United States District Court, Northern District of California, Deposition Testimony on behalf of Vocus, Inc., 2016.
- The Charter Oak Fire Company, et al. v. American Capital Ltd., United States District Court for the District of Maryland, Deposition and Trial Testimony on behalf of Charter Oak Fire Company and Travelers Insurance, 2017.
- Marketing Concepts Group, Inc. v. Aldi, In the Circuit Court of Cook County, County Department Law Division, Deposition Testimony on behalf of Aldi, 2017.
- DXC Technology Company v. Hewlett Packard Enterprise Company, CPR Institute, Deposition and Arbitration Hearing Testimony on behalf of DXC Technology Company, 2018.
- Uptake Technologies v. Panduit Corp., American Arbitration Association, Arbitration Hearing Testimony on behalf of Panduit Corp., 2019.

Publications and Presentations for the Last Ten Years

- Strategic Considerations of Earnout Provisions, Alvarez & Marsal Raising the Bar eNewsletter, March/April 2010.
- AICPA National Forensic Accounting Conference, Earnouts: Case Study, September, 2010.
- Mitigating Common M&A Purchase Price Disputes, Alvarez & Marsal Raising the Bar eNewsletter, September 2011.
- Mergers and Acquisitions Disputes, AICPA Forensic and Valuation Services Section Practice Aid, 2012.
- Purchase Price Disputes, Legal and Accounting Considerations, Training at External Law Firm, 2014.
- Navigating Post-Closing Purchase Price Disputes, Alvarez & Marsal Raising the Bar eNewsletter, December 2014.
- Avoiding Working Capital Dispute Pitfalls, Alvarez & Marsal Raising the Bar eNewsletter, May 2017.
- Purchase Price Disputes, Alvarez & Marsal Internal Training, February 2018

HIGHLY CONFIDENTIAL

Appendix 2

HIGHLY CONFIDENTIAL

Appendix 2

Documents and Information Considered

I. Pleadings

Cuyahoga County et al. Second Amended Corrected Complaint dated May 25, 2018
Summit County et al. Corrected Second Amended Complaint dated May 18, 2018
Summit County et al. Third Amended Complaint dated March 21, 2019
Defendant McKesson Corporation's Answer and Affirmative Defenses dated January 15, 2019

II. Interrogatory Responses

Cuyahoga County's First Amended Responses and Objections to Distributor Defendants' First Set of Interrogatories dated June 20, 2018
Cuyahoga County's Responses and Objections to Manufacturer Defendants' Second Set of Interrogatories dated July 5, 2018
Cuyahoga County's First Amended Responses and Objections to Distributor Defendants' Third Set of Interrogatories dated August 13, 2018
Cuyahoga County's Second Amended Responses and Objections to Manufacturer Defendants' First Set of Interrogatories dated August 17, 2018
Summit County and the City of Akron's First Amended Responses and Objections to Distributor Defendants' First Set of Interrogatories dated June 20, 2018
Summit County and the City of Akron's Initial Responses and Objections to Manufacturer Defendants' Second Set of Interrogatories dated July 5, 2018
Summit County and the City of Akron's First Amended Responses and Objections to Distributor Defendants' Third Set of Interrogatories dated August 13, 2018
Summit County and City of Akron's Second Amended Responses and Objections to Manufacturer Defendants' First Set of Interrogatories dated August 17, 2018
Summit County and City of Akron's First Amended Responses and Objections to the National Retail Pharmacy Defendants' First Set of Interrogatories dated September 26, 2018
Cuyahoga County's Supplemental Responses and Objections to Distributor Defendants' Interrogatory Number 18 Pursuant to Special Master Cohen's October 23, 2018 Order dated November 5, 2018
Summit County's Supplemental Responses and Objections to Distributor Defendants' Interrogatory Number 18 Pursuant to Special Master Cohen's October 23, 2018 Order dated November 5, 2018
Summit County's Second Supplemental Response and Objections to Distributor Defendants' Interrogatory No. 18 Pursuant to the Court's November 21, 2018 Order dated November 30, 2018
Cuyahoga County's Second Supplemental Response and Objections to Distributor Defendants' Interrogatory No. 18 Pursuant to the Court's November 21, 2018 Order dated November 30, 2018

III. Court Orders and Discovery Rulings

Opinion and Order from J. Polster dated December 19, 2018 (Dkt. No. 1203)
Order re Objections to Discovery Ruling No. 17 from J. Polster dated April 10, 2019 (Dkt. No. 1535)
Order Granting an Extension to File a Single, Supplemental Report on Children's Services' Damages from SM Cohen dated May 7, 2019

IV. Plaintiffs' Experts' Depositions

Deposition of Caleb Alexander dated April 26, 2019
Deposition of David Cutler Part I dated April 26, 2019
Deposition of David Cutler Part II dated April 27, 2019
Deposition of Katherine Keyes dated April 29, 2019 and Exhibits 1-19
Deposition of Jeffrey Liebman dated May 3, 2019 and Exhibits 1-16

HIGHLY CONFIDENTIAL

Appendix 2

Deposition of Thomas McGuire Part I dated April 23, 2019 and Exhibits 1-5
Deposition of Thomas McGuire Part II dated April 30, 2019
Deposition of Scott Wexelblatt dated April 24, 2019

V. Other Depositions

A. Cuyahoga County

Deposition of Terrence Allan dated December 17, 2018 and Exhibits 1-15
Deposition of Melinda Burt dated October 30, 2018 and Exhibits 3, 4, and 6
Deposition of Christopher Cabot dated November 2, 2018 and Exhibits 1-19
Deposition of Brandy Carney dated January 16, 2019 and Exhibits 1-11
Deposition of William Denihan dated January 30, 2019 and Exhibits 1-16
Deposition of Deborah Forkas dated January 23, 2019 and Exhibits 1-11
Deposition of James Gatt dated December 20, 2018 and Exhibits 1-4
Deposition of Donald Gerome Part I dated November 14, 2018 and Exhibits 3 and 4
Deposition of Donald Gerome Part II dated March 22, 2019 and Exhibits 8-25
Deposition of Thomas Gilson 30(b)(6) dated January 14, 2019 and Exhibits 1-3 and 7-14
Deposition of Thomas Gilson dated January 22, 2019 and Exhibits 1-6
Deposition of Heidi Lynelle Duff Gullett dated December 14, 2018 and Exhibits 1-9
Deposition of James Gutierrez, Esq. dated January 31, 2019 and Exhibits 1-14
Deposition of James Gutierrez 30(b)(6) dated January 31, 2019 and Exhibits 1-2
Deposition of Sharon Sobol Jordan dated February 7, 2019 and Exhibits 1-9
Deposition of Sharon Cole Juhan dated March 13, 2019 and Exhibits 1-10
Deposition of Claire Kaspar dated January 15, 2019 and Exhibits 1-19
Deposition of Maggie Keenan dated December 12, 2018 and Exhibits 1-19
Deposition of Maggie Keenan 30(b)(6) dated January 18, 2018 and Exhibits 1-3
Deposition of Molly Leckler dated November 19, 2018 and Exhibits 1-24
Deposition of Allisyn Leppla dated January 15, 2019 and Exhibits 1-18
Deposition of Trevor McAleer dated January 10, 2019 and Exhibits 1-13
Deposition of Egdilio Morales dated January 23, 2019
Deposition of David Merriman dated January 8, 2019 and Exhibits 1-24
Deposition of W. Christopher Murray Part I dated August 3, 2019 and Exhibits 1, 6-7
Deposition of W. Christopher Murray Part II dated February 21, 2019 and Exhibits 1-6
Deposition of Joseph Nanni dated January 10, 2019 and Exhibits 1-16
Deposition of Scott Osiecki dated January 18, 2019 and Exhibits 1-27
Deposition of Walter Parfejewiec dated November 8, 2019 and Exhibits 1-3, 5-14, 16, and 18
Deposition of Ralph Piatak dated January 14, 2018 and Exhibits 1-19
Deposition of Christina Delos Reyes dated February 8, 2019 and Exhibits 1-8
Deposition of Patricia Rideout dated January 11, 2019 and Exhibits 1-30
Deposition of Farid Sabet dated January 28, 2019 and Exhibits 1-10
Deposition of Hugh Shannon 30(b)(6) dated January 15, 2019 and Exhibits 1-3
Deposition of Hugh Shannon Part II dated March 19, 2019 and Exhibits 8-13
Deposition of Cory Swaisgood dated January 23, 2019 and Exhibits 1-10
Deposition of April Vince dated December 13, 2018 and Exhibits 1-9
Deposition of Deborah Watkins dated October 9, 2018 and Exhibits 1-10
Deposition of Richard Weiler dated January 25, 2019 and Exhibits 1-7
Deposition of Cynthia Weiskittel dated November 13, 2018 and Exhibits 1-32
Deposition of Holly Woods dated September 27, 2018 and Exhibits 1-16
Deposition of Holly Woods 30(b)(6) dated January 7, 2019

HIGHLY CONFIDENTIAL

Appendix 2

B. Summit County

Deposition of Hylton Baker dated December 19, 2018 and Exhibits 1-16
Deposition of Lori Baker-Stella dated March 29, 2019 and Exhibits 1-6
Deposition of Shane Barker dated November 28, 2018 and Exhibits 1-22
Deposition of Julie Barnes dated December 3, 2018 and Exhibits 1-14
Deposition of Tonya Block dated November 14, 2018 and Exhibits 1-12
Deposition of Margaret June Carr 30(b)(6) dated December 21, 2018 and Exhibits 1-11
Deposition of Anne Connell-Freund dated January 24, 2019 and Exhibits 1-9
Deposition of Gerald Craig dated January 11, 2018 and Exhibits 1-33
Deposition of Brad Gessner dated December 3, 2018 and Exhibits 1-18
Deposition of Patrick Gillespie dated January 8, 2019 and Exhibits 1-17
Deposition of Gary Guenther dated October 16, 2018 and Exhibits 1-20
Deposition of William Harper dated December 11, 2018 and Exhibits 1-15
Deposition of Jennifer Hawkins Dated February 28, 2019 and Exhibits 1-14
Deposition of Eric Hutzell dated January 8, 2019 and Exhibits 1-19
Deposition of Greta Johnson 30(b)(6) dated January 15, 2019 and Exhibits 1-19
Deposition of Darin Kearns dated December 5, 2018 and Exhibits 1-12
Deposition of Lisa Kohler dated July 31, 2018 and Exhibits 1-20
Deposition of Brian Nelsen dated December 19, 2018 and Exhibits 1-21
Deposition of Brian Nelsen 30(b) (6) dated January 24, 2019 and Exhibits 1-5
Deposition of Matthew Paolino dated December 5, 2018 and Exhibits 1-3
Deposition of Kimberly Patton dated January 22, 2019 and Exhibits 1-9
Deposition of Steve Perch dated October 18, 2018 and Exhibits 1-8
Deposition of Jackie Pollard dated November 30, 2018 and Exhibits 1-5
Deposition of Mark Potter dated January 18, 2019 and Exhibits 1-8
Deposition of John Saros dated January 22, 2019 and Exhibits 1-4
Deposition of Donna Skoda dated August 14, 2018 and Exhibits 1-18
Deposition of Douglas Smith dated November 16, 2018 and Exhibits 1-26
Deposition of George Sterbenz dated October 17, 2018 and Exhibits 1-11
Deposition of Carolyn Stevenson dated December 18, 2018 and Exhibits 1-10

C. Akron

Deposition of Gertrude Wilms dated August 3, 2018 and Exhibits 1, 2, 5, 13, 16, 18, 19, and 20
Deposition of Jeff Sturmi dated November 15, 2018 and Exhibits 1-6, 8-13, 16-17, 19, 21-24

D. Cleveland

Deposition of Gary Gingell dated November 20, 2018 and Exhibits 1-9, 11-15, and 17-26
Deposition of Matt Baeppler dated January 17, 2019 and Exhibits 1-26
Deposition of Christopher Kippes dated January 18, 2018 and Exhibits 1-21

VI. Expert Reports

Supplemental Expert Witness Report of Caleb Alexander dated April 3, 2019 including Appendices, citations, and all other supplemental materials
Expert Report of David Cutler dated March 25, 2019 including Appendices, citations, and all other supplemental materials
Expert Witness Report of Katherine Keyes dated March 24, 2019 including citations
Expert Report of Anna Lembke dated March 25, 2019 including Appendices, citations, and all other supplemental materials
Expert Report of Jeffrey B. Liebman dated March 25, 2019 including Appendices, citations, and all other supplemental materials

HIGHLY CONFIDENTIAL**Appendix 2**

Supplemental Expert Report of Jeffery B. Liebman dated April 3, 2019 including Appendices, citations, and all other supplemental materials
 Expert Report of Craig McCann dated March 25, 2019 including Appendices and citations
 Supplemental Expert Report of Craig McCann dated April 3, 2019 including Appendices and citations
 Second Supplemental Expert Report of Craig McCann dated April 15, 2019 including Appendices and citations
 Expert Report of Thomas McGuire Damages to Bellwethers dated March 25, 2019 including Appendices, citations, and all other supplemental materials
 Expert Report of Thomas McGuire Regarding Public Nuisance dated March 25, 2019 including Appendices, citation, and all other supplemental materials
 Expert Report of Meredith Resenthal dated March 25, 2019 including Appendices and citations
 Expert Report of Scott L. Wexelblatt dated March 25, 2019 including citations
 Expert Report of Nancy K. Young dated March 25, 2019 including Appendices, citations, and all other supplemental materials

VII. County Budgets and Annual Financial Reports**A. Cuyahoga County**

Cuyahoga 2017 CAFR (https://fiscalofficer.cuyahogacounty.us/pdf_fiscalofficer/en-US/2017CCFinancialAudit.pdf)
 Cuyahoga 2016 CAFR/Single Audit (CUYAH_001975499)
 Cuyahoga 2015 CAFR/Single Audit (CUYAH_001975132)
 Cuyahoga 2014 CAFR/Single Audit (CUYAH_001974795)
 Cuyahoga 2013 CAFR/Single Audit (CUYAH_001974448)
 Cuyahoga 2012 CAFR/Single Audit (CUYAH_001974107)
 Cuyahoga 2011 CAFR/Single Audit (CUYAH_001973976)
 Cuyahoga 2010 CAFR/Single Audit (CUYAH_001973867)
 Cuyahoga 2009 CAFR/Single Audit (CUYAH_001973762)
 Cuyahoga 2008 CAFR/Single Audit (CUYAH_001973659)
 Cuyahoga 2007 CAFR (CUYAH_005986033)
 Cuyahoga 2006 CAFR (CUYAH_001973384)
 Cuyahoga 2007 Single Audit (CUYAH_001968898)
 Cuyahoga 2006 Single Audit (CUYAH_001968627)
 Cuyahoga 2018-2019 Administrator's/Executive's Recommended Budget (CUYAH_000011081)
 Cuyahoga 2016-2017 Administrator's/Executive's Recommended Budget (CUYAH_000009368)
 Cuyahoga 2014-2015 Administrator's/Executive's Recommended Budget (CUYAH_000008908)
 Cuyahoga 2012-2013 Administrator's/Executive's Recommended Budget (CUYAH_005988028)
 Cuyahoga 2011 Administrator's/Executive's Recommended Budget (CUYAH_000005497)
 Cuyahoga 2010 Administrator's/Executive's Recommended Budget (CUYAH_000004553)
 Cuyahoga 2009 Administrator's/Executive's Recommended Budget (CUYAH_000000820)
 Cuyahoga 2008 Administrator's/Executive's Recommended Budget (CUYAH_000004037)
 Cuyahoga 2007 Administrator's/Executive's Recommended Budget (CUYAH_000003173)
 Cuyahoga 2018-2019 Budget Plan (CUYAH_000010910)
 Cuyahoga 2016-2017 Budget Plan (CUYAH_005987279)
 Cuyahoga 2014-2015 Budget Plan (CUYAH_000008003)
 Cuyahoga 2012-2013 Budget Plan (CUYAH_000005740)
 Cuyahoga 2010 Budget Plan (CUYAH_000001136)
 Cuyahoga 2009 Budget Plan (CUYAH_000000200)
 Cuyahoga 2008 Budget Plan (CUYAH_000003509)
 Cuyahoga 2007 Budget Plan (CUYAH_000002564)
 Cuyahoga 2006 Budget Plan (CUYAH_000001932)

HIGHLY CONFIDENTIAL**Appendix 2****B. Summit County**

Summit 2017 CAFR (<https://fiscaloffice.summitoh.net/index.php/documents-a-forms/finish/8-comprehensive-annual-financial-reports/1741-2017-cafr>)

Summit 2016 CAFR (<https://fiscaloffice.summitoh.net/index.php/documents-a-forms/finish/8-comprehensive-annual-financial-reports/1702-2016-cafr>)

Summit 2015 CAFR (<https://fiscaloffice.summitoh.net/index.php/documents-a-forms/finish/8-comprehensive-annual-financial-reports/1649-2015-cafr>)

Summit 2014 CAFR (<https://fiscaloffice.summitoh.net/index.php/documents-a-forms/finish/8-comprehensive-annual-financial-reports/1616-2014-cafr>)

Summit 2013 CAFR (<https://fiscaloffice.summitoh.net/index.php/documents-a-forms/finish/8-comprehensive-annual-financial-reports/1059-2013-cafr>)

Summit 2012 CAFR (<https://fiscaloffice.summitoh.net/index.php/documents-a-forms/finish/8-comprehensive-annual-financial-reports/853-2012-cafr>)

Summit 2011 CAFR (<https://fiscaloffice.summitoh.net/index.php/documents-a-forms/finish/8-comprehensive-annual-financial-reports/780-2011-cafr>)

Summit 2010 CAFR (<https://fiscaloffice.summitoh.net/index.php/documents-a-forms/finish/8-comprehensive-annual-financial-reports/744-2010-cafr>)

Summit 2009 CAFR (<https://fiscaloffice.summitoh.net/index.php/documents-a-forms/finish/8-comprehensive-annual-financial-reports/645-2009-cafr>)

Summit 2008 CAFR (<https://fiscaloffice.summitoh.net/index.php/documents-a-forms/finish/8-comprehensive-annual-financial-reports/63-2008-cafr>)

Summit 2007 CAFR (<https://fiscaloffice.summitoh.net/index.php/documents-a-forms/finish/8-comprehensive-annual-financial-reports/62-2007-cafr>)

Summit 2006 CAFR (<https://fiscaloffice.summitoh.net/index.php/documents-a-forms/finish/8-comprehensive-annual-financial-reports/61-2006-cafr>)

Summit 2019 Operating Budget
(https://co.summitoh.net/images/stories/Finance/pdf/OperatingBudget/CountyofSummit_2019AdoptedOperatingBudget.pdf)

Summit 2018 Operating Budget (SUMMIT_000008414)

Summit 2017 Operating Budget (SUMMIT_000007551)

Summit 2016 Operating Budget (SUMMIT_000006663)

Summit 2015 Operating Budget (SUMMIT_000005697)

Summit 2014 Operating Budget (SUMMIT_000004576)

Summit 2013 Operating Budget (SUMMIT_000000207)

Summit 2012 Operating Budget (SUMMIT_000002922)

Summit 2011 Operating Budget (SUMMIT_000002310)

Summit 2010 Operating Budget (SUMMIT_000001728)

Summit 2009 Operating Budget (SUMMIT_000015990)

Summit 2008 Operating Budget (SUMMIT_000015385)

Summit 2007 Operating Budget (SUMMIT_000014772)

Summit 2006 Operating Budget (SUMMIT_000014151)

VIII. Divisional Budgets and Annual Reports**A. Cuyahoga County**

ADAMHS 2017 Annual Report (CUYAH_000012577)

ADAMHS 2016 Annual Report (http://adamhscc.org/pdf_adamhscc/en-us/Publications/ADAMHSCCRpts/16AnnualRpt.pdf)

ADAMHS 2015 Annual Report (CUYAH_000012561)

ADAMHS 2014 Annual Report (CUYAH_000012545)

ADAMHS 2013 Annual Report (CUYAH_000012529)

ADAMHS 2012 Annual Report (CUYAH_000012513)

HIGHLY CONFIDENTIAL

Appendix 2

ADAMHS 2011 Annual Report (CUYAH_000012497)
 ADAMHS 2010 Annual Report (CUYAH_000012481)
 ADAMHS 2009 Annual Report (CUYAH_000012457)
 Mental Health Board 2008 Annual Report (CUYAH_000012445)
 Mental Health Board 2007 Annual Report (CUYAH_000012433)
 Mental Health Board 2006 Annual Report (CUYAH_000012421)
 ADAMHS 2014 Budget (CUYAH_000013464)
 Office of the Prosecutor 2016 Report to the Public (CUYAH_001368881)
 Office of the Prosecutor 2015 Report to the Public (CUYAH_012970490)
 Court of Common Pleas 2017 Annual Report (CUYAH_001349609)
 Court of Common Pleas 2016 Annual Report (CUYAH_000088633)
 Court of Common Pleas 2015 Annual Report (CUYAH_000088545)
 Court of Common Pleas 2014 Annual Report (CUYAH_000088469)
 Court of Common Pleas 2013 Annual Report (CUYAH_000088393)
 Court of Common Pleas 2012 Annual Report (CUYAH_000088317)
 Court of Common Pleas 2011 Annual Report (CUYAH_000088247)
 Court of Common Pleas 2010 Annual Report (CUYAH_000088171)
 Court of Common Pleas 2009 Annual Report (CUYAH_000088095)
 Court of Common Pleas 2008 Annual Report (CUYAH_001348726)
 Court of Common Pleas 2007 Annual Report (CUYAH_001348617)
 Court of Common Pleas 2006 Annual Report (CUYAH_001348557)
 Juvenile Court 2017 Annual Report (http://juvenile.cuyahogacounty.us/pdf_juvenile/en-US/AnnualReports/2017AnnualReport.pdf)
 Juvenile Court 2016 Annual Report (CUYAH_012970438)
 Juvenile Court 2015 Annual Report (CUYAH_012970386)
 Juvenile Court 2014 Annual Report (CUYAH_012970334)
 Juvenile Court 2013 Annual Report (CUYAH_012970290)
 Juvenile Court 2012 Annual Report (CUYAH_012970242)
 Juvenile Court 2011 Annual Report (CUYAH_012970190)
 Juvenile Court 2010 Annual Report (CUYAH_012970138)
 Juvenile Court 2009 Annual Report (CUYAH_012970082)
 Juvenile Court 2008 Annual Report (CUYAH_012970038)
 Juvenile Court 2007 Annual Report (CUYAH_012969998)
 Juvenile Court 2006 Annual Report (CUYAH_012969960)
 Sheriff's Department 2017 Annual Report (CUYAH_000117228)
 Sheriff's Department 2016 Annual Report (CUYAH_000114691)
 Sheriff's Department 2015 Annual Report (CUYAH_000120708)
 Sheriff's Department 2014 Annual Report (CUYAH_000114630)
 Sheriff's Department 2013 Annual Report (CUYAH_000114568)
 Sheriff's Department 2012 Annual Report (CUYAH_000114510)
 Sheriff's Department 2011 Annual Report (CUYAH_000114454)
 Sheriff's Department 2010 Annual Report (CUYAH_000106658)
 Sheriff's Department 2009 Annual Report (CUYAH_000106612)
 Medical Examiner's 2016 Statistical Report (CUYAH_000017649)
 Medical Examiner's 2015 Statistical Report (CUYAH_000017403)
 Medical Examiner's 2014 Statistical Report (CUYAH_000017141)
 Medical Examiner's 2013 Statistical Report (CUYAH_000016895)
 Medical Examiner's 2012 Statistical Report (CUYAH_000016653)
 Medical Examiner's 2011 Statistical Report (CUYAH_000016423)
 Medical Examiner's 2007-2010 Statistical Report (CUYAH_000016139)
 Medical Examiner's 2006 Statistical Report (CUYAH_000015903)

HIGHLY CONFIDENTIAL

Appendix 2**B. Summit County**

ADM 2014 Annual Clinic Report (SUMMIT_001019681)
 ADM 2013 Annual Clinic Report (SUMMIT_000942201)
 ADM 2012 Annual Clinic Report (SUMMIT_001176670)
 ADM 2018 Annual Budget Review (SUMMIT_001085282)
 ADM 2017 Annual Budget Review (SUMMIT_000019668)
 ADM 2016 Annual Budget Review (SUMMIT_000019580)
 ADM 2015 Annual Budget Review (SUMMIT_000019490)
 ADM 2014 Annual Budget Review (SUMMIT_000042884)
 ADM 2013 Annual Budget Review (SUMMIT_001184459)
 ADM 2010 Annual Budget Review (SUMMIT_000019388)
 ADM 2009 Annual Budget Review (SUMMIT_000019258)
 ADM 2008 Annual Budget Review (SUMMIT_000019112)
 ADM 2007 Annual Budget Review (SUMMIT_000018966)
 Children Services 2017 Annual Report (SUMMIT_002052855)
 Children Services 2016 Annual Report (SUMMIT_000003954)
 Children Services 2015 Annual Report (SUMMIT_000003942)
 Children Services 2014 Annual Report (SUMMIT_000003930)
 Children Services 2013 Annual Report (SUMMIT_000111088)
 Children Services 2012 Annual Report (SUMMIT_000111080)
 Children Services 2011 Annual Report (SUMMIT_000111072)
 Children Services 2010 Annual Report (SUMMIT_000111064)
 Children Services 2009 Annual Report (SUMMIT_000111056)
 Children Services 2008 Annual Report (SUMMIT_000111047)
 Children Services 2007 Annual Report (SUMMIT_000111033)
 Children Services 2006 Annual Report (SUMMIT_000111100)
 Children Services 2018 Annual Budget (SUMMIT_001874477)
 Children Services 2017 Annual Budget (SUMMIT_001128330)
 Children Services 2016 Annual Budget (SUMMIT_001128432)
 Court of Common Pleas 2016 Annual Report (SUMMIT_000004286)
 Court of Common Pleas 2015 Annual Report (SUMMIT_000004234)
 Court of Common Pleas 2014 Annual Report (SUMMIT_000004182)
 Court of Common Pleas 2013 Annual Report (SUMMIT_000004126)
 Court of Common Pleas 2012 Annual Report (SUMMIT_000004070)
 Court of Common Pleas 2011 Annual Report (SUMMIT_000004014)
 Court of Common Pleas 2010 Annual Report (SUMMIT_000003958)
 Court of Common Pleas 2009 Annual Report (SUMMIT_000111475)
 Court of Common Pleas 2008 Annual Report (SUMMIT_000111417)
 Court of Common Pleas 2007 Annual Report (SUMMIT_000111364)
 Court of Common Pleas 2006 Annual Report (SUMMIT_000111332)
 Juvenile Division 2017 Annual Report (SUMMIT_001547433)
 Juvenile Division 2016 Annual Report (SUMMIT_000087479)
 Juvenile Division 2015 Annual Report (SUMMIT_001520256)
 Juvenile Division 2014 Annual Report (SUMMIT_001520232)
 Juvenile Division 2013 Annual Report (SUMMIT_001520200)
 Juvenile Division 2012 Annual Report (SUMMIT_001520172)
 Juvenile Division 2011 Annual Report (SUMMIT_001520146)
 Juvenile Division 2010 Annual Report (SUMMIT_001520120)
 Juvenile Division 2009 Annual Report (SUMMIT_001520096)
 Juvenile Division 2008 Annual Report (SUMMIT_001520072)
 Juvenile Division 2007 Annual Report (SUMMIT_001520049)
 Juvenile Division 2006 Annual Report (SUMMIT_001520029)

HIGHLY CONFIDENTIAL**Appendix 2**

Sheriff's Office 2017 Annual Report (SUMMIT_000290153)
 Sheriff's Office 2017 Annual Report
 (<https://co.summitoh.net/SHERIFF/images/stories/PDFs/2017%20annual%20report.pdf>)
 Sheriff's Office 2016 Annual Report (SUMMIT_000342376)
 Sheriff's Office 2015 Annual Report (SUMMIT_000342318)
 Sheriff's Office 2014 Annual Report (SUMMIT_000070610)
 Sheriff's Office 2013 Annual Report (SUMMIT_000342250)
 Sheriff's Office 2009 Annual Report (SUMMIT_001129077)
 Sheriff's Office 2007 Annual Report (SUMMIT_001129039)
 Sheriff's Office 2006 Annual Report (SUMMIT_001128987)
 Sheriff's Office 2005 Annual Report (SUMMIT_001128941)
 Sheriff's Office 2004 Annual Report (SUMMIT_001128895)
 Sheriff's Office 2003 Annual Report (SUMMIT_001128847)
 Medical Examiner 2017 Annual Report (SUMMIT_000022439)
 Medical Examiner 2016 Annual Report (SUMMIT_000022367)
 Medical Examiner 2015 Annual Report (SUMMIT_000022730)
 Medical Examiner 2014 Annual Report (SUMMIT_000022656)
 Medical Examiner 2013 Annual Report (SUMMIT_000022583)
 Medical Examiner 2012 Annual Report (SUMMIT_000022510)
 Medical Examiner 2011 Annual Report (SUMMIT_000023168)
 Medical Examiner 2010 Annual Report (SUMMIT_000023096)
 Medical Examiner 2009 Annual Report (SUMMIT_000023023)
 Medical Examiner 2008 Annual Report (SUMMIT_000022951)
 Medical Examiner 2007 Annual Report (SUMMIT_000022877)
 Medical Examiner 2006 Annual Report (SUMMIT_000022803)

IX. Cuyahoga County Council Resolutions

Cuyahoga County Council Resolution No. R2017-0021 (http://council.cuyahogacounty.us/pdf_council/en-US/Legislation/Resolutions/2017/R2017-0021B%20OBM%20Fiscal%20Items%20for%202-14-2017.pdf)
 Cuyahoga County Council Resolution No. R2016-0234 (http://council.cuyahogacounty.us/pdf_council/en-US/Legislation/Resolutions/2016/R2016-0234C%20OBM%20Fiscal%20Items%20for%2012-13-2016.pdf)
 Cuyahoga County Council Resolution No. R2015-0010 (http://council.cuyahogacounty.us/pdf_council/en-US/Legislation/Resolutions/2015/R2015-0010D%20Agreement%20with%20ADAMHS%20Board%20for%20Adult%20Probation%20Substance%20Abuse%20Residential%20Treatment%20Pgrm.pdf)
 Cuyahoga County Council Resolution No. R2015-0009 (http://council.cuyahogacounty.us/pdf_council/en-US/Legislation/Resolutions/2015/R2015-0009E%20Agreement%20with%20ADAMHS%20Board%20for%20FY2014%20Drug%20Court%20Expansion%20Project.pdf)
 Cuyahoga County Council Resolution No. R2014-0051 (http://council.cuyahogacounty.us/pdf_council/en-US/Legislation/Resolutions/2014/R2014-0051B%20OBM%20Fiscal%20Items%20for%202-25-2014.pdf)
 Cuyahoga County Council Resolution No. R2013-0057 (http://council.cuyahogacounty.us/pdf_council/en-US/Legislation/Resolutions/2013/R2013-0057B%20OBM%20Fiscal%20Items%203-27-2013.pdf)
 Cuyahoga County Council Resolution No. R2012-0002
 (http://www.council.cuyahogacounty.us/pdf_council/en-US/Legislation/Resolutions/2012/R2012-0002B%20OBM%20Fiscal%20Agenda%201-10-2012.pdf)

HIGHLY CONFIDENTIAL**Appendix 2****X. Books & Other Literature Sources**

Baser, et al., Cost and Utilization Outcomes of Opioid-Dependence Treatments, Am. J. Manag. Care, Volume 17, S235-S248 (2011)

Barfield, Raiborn, and Kinney. Cost Accounting Traditions and Innovations. 2nd Edition, 1994.

Gruber, Jonathan. Public Finance and Public Policy, 2016.

Horngren, Sundem, and Stratton. Introduction to Management Accounting. 12th Edition, 2002.

Horngren, Harrison, and Robinson. Principles of Financial & Management Accounting. 1994.

James M. Buchanan (2008). "Opportunity cost". The New Palgrave Dictionary of Economics Online (Second ed.).

Mikesell, John L. Fiscal Administration. 10th Edition, 2018.

Sinaiko, et al., Implications of Family Risk Pooling for Individual Health Insurance Markets, Health Services and Outcomes Research Methodology, Volume 17, Issue 3–4. (Dec. 2017)

Weil, R., Lentz, D. and Evans, E. Litigation Services Handbook. 6th Edition, 2017, Section 4.4 “Damages Theory”; Section 4.2 “Fundamentals of Causation.”

Weil, R., Wagner, M. and Frank, P. Litigation Services Handbook. 3rd Edition, 2001, Section 5.3 “Issues Common to Most Damages Studies.”

XI. Production Documents

AKRON_000209254	CUYAH_000006987	CUYAH_000011596
CHC 001	CUYAH_000007217	CUYAH_000011616
CLEVE_002443689	CUYAH_000007428	CUYAH_000011642
CLEVE_002778417	CUYAH_000007467	CUYAH_000011799
CLEVE114	CUYAH_000007688	CUYAH_000011885
CLEVE124	CUYAH_000007712	CUYAH_000011997
CUYAH_000000001	CUYAH_000007930	CUYAH_000012351
CUYAH_000000065	CUYAH_000008641	CUYAH_000012363
CUYAH_000000133	CUYAH_000008681	CUYAH_000012371
CUYAH_000000719	CUYAH_000009207	CUYAH_000012383
CUYAH_000000748	CUYAH_000009270	CUYAH_000012397
CUYAH_000001647	CUYAH_000009291	CUYAH_000012409
CUYAH_000001731	CUYAH_000009317	CUYAH_000012593
CUYAH_000001812	CUYAH_000009327	CUYAH_000012595
CUYAH_000001875	CUYAH_000009346	CUYAH_000013106
CUYAH_000002440	CUYAH_000009614	CUYAH_000013806
CUYAH_000002503	CUYAH_000010261	CUYAH_000013813
CUYAH_000003073	CUYAH_000010320	CUYAH_000013818
CUYAH_000003100	CUYAH_000010330	CUYAH_000014655
CUYAH_000003437	CUYAH_000010368	CUYAH_000014731
CUYAH_000004007	CUYAH_000010424	CUYAH_000014963
CUYAH_000004295	CUYAH_000010827	CUYAH_000015195
CUYAH_000004375	CUYAH_000010846	CUYAH_000015429
CUYAH_000004524	CUYAH_000010897	CUYAH_000015665
CUYAH_000004799	CUYAH_000011252	CUYAH_000016195
CUYAH_000004969	CUYAH_000011263	CUYAH_000017387
CUYAH_000005146	CUYAH_000011319	CUYAH_000017939
CUYAH_000005328	CUYAH_000011403	CUYAH_000017941
CUYAH_000006330	CUYAH_000011444	CUYAH_000017947
CUYAH_000006574	CUYAH_000011493	CUYAH_000017998
CUYAH_000006845	CUYAH_000011526	CUYAH_000018000

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000018007	CUYAH_000019499	CUYAH_000020932
CUYAH_000018010	CUYAH_000019524	CUYAH_000020936
CUYAH_000018013	CUYAH_000019549	CUYAH_000020938
CUYAH_000018016	CUYAH_000019576	CUYAH_000020939
CUYAH_000018026	CUYAH_000019603	CUYAH_000020941
CUYAH_000018030	CUYAH_000019630	CUYAH_000020946
CUYAH_000018038	CUYAH_000019659	CUYAH_000020947
CUYAH_000018067	CUYAH_000019688	CUYAH_000020948
CUYAH_000018073	CUYAH_000019717	CUYAH_000020951
CUYAH_000018076	CUYAH_000019770	CUYAH_000020958
CUYAH_000018079	CUYAH_000019859	CUYAH_000020962
CUYAH_000018116	CUYAH_000019942	CUYAH_000020965
CUYAH_000018119	CUYAH_000019999	CUYAH_000020966
CUYAH_000018142	CUYAH_000020064	CUYAH_000020967
CUYAH_000018155	CUYAH_000020131	CUYAH_000020968
CUYAH_000018162	CUYAH_000020202	CUYAH_000020972
CUYAH_000018175	CUYAH_000020271	CUYAH_000020973
CUYAH_000018178	CUYAH_000020332	CUYAH_000020974
CUYAH_000018179	CUYAH_000020368	CUYAH_000020975
CUYAH_000018180	CUYAH_000020380	CUYAH_000020986
CUYAH_000018200	CUYAH_000020445	CUYAH_000020987
CUYAH_000018220	CUYAH_000020456	CUYAH_000020988
CUYAH_000018233	CUYAH_000020495	CUYAH_000020993
CUYAH_000018249	CUYAH_000020534	CUYAH_000020997
CUYAH_000018265	CUYAH_000020591	CUYAH_000021000
CUYAH_000018278	CUYAH_000020690	CUYAH_000021005
CUYAH_000018282	CUYAH_000020787	CUYAH_000021006
CUYAH_000018295	CUYAH_000020854	CUYAH_000021008
CUYAH_000018323	CUYAH_000020859	CUYAH_000021011
CUYAH_000018328	CUYAH_000020864	CUYAH_000021031
CUYAH_000018356	CUYAH_000020869	CUYAH_000021032
CUYAH_000018361	CUYAH_000020870	CUYAH_000021037
CUYAH_000018489	CUYAH_000020875	CUYAH_000021040
CUYAH_000018510	CUYAH_000020880	CUYAH_000021043
CUYAH_000018534	CUYAH_000020884	CUYAH_000021045
CUYAH_000018550	CUYAH_000020887	CUYAH_000021046
CUYAH_000018578	CUYAH_000020888	CUYAH_000021047
CUYAH_000018585	CUYAH_000020891	CUYAH_000021049
CUYAH_000018601	CUYAH_000020892	CUYAH_000021052
CUYAH_000018613	CUYAH_000020899	CUYAH_000021054
CUYAH_000018628	CUYAH_000020900	CUYAH_000021070
CUYAH_000018676	CUYAH_000020901	CUYAH_000021073
CUYAH_000018728	CUYAH_000020902	CUYAH_000021075
CUYAH_000018761	CUYAH_000020905	CUYAH_000021077
CUYAH_000018781	CUYAH_000020906	CUYAH_000021088
CUYAH_000018831	CUYAH_000020908	CUYAH_000021090
CUYAH_000018890	CUYAH_000020909	CUYAH_000021093
CUYAH_000019338	CUYAH_000020910	CUYAH_000021098
CUYAH_000019419	CUYAH_000020911	CUYAH_000021103
CUYAH_000019438	CUYAH_000020920	CUYAH_000021106
CUYAH_000019457	CUYAH_000020923	CUYAH_000021111
CUYAH_000019478	CUYAH_000020924	CUYAH_000021116

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000021117	CUYAH_000021389	CUYAH_000021648
CUYAH_000021118	CUYAH_000021392	CUYAH_000021650
CUYAH_000021134	CUYAH_000021398	CUYAH_000021653
CUYAH_000021139	CUYAH_000021408	CUYAH_000021656
CUYAH_000021143	CUYAH_000021410	CUYAH_000021667
CUYAH_000021160	CUYAH_000021413	CUYAH_000021668
CUYAH_000021170	CUYAH_000021415	CUYAH_000021670
CUYAH_000021172	CUYAH_000021419	CUYAH_000021675
CUYAH_000021176	CUYAH_000021426	CUYAH_000021686
CUYAH_000021179	CUYAH_000021430	CUYAH_000021689
CUYAH_000021183	CUYAH_000021441	CUYAH_000021690
CUYAH_000021185	CUYAH_000021442	CUYAH_000021691
CUYAH_000021187	CUYAH_000021444	CUYAH_000021693
CUYAH_000021190	CUYAH_000021447	CUYAH_000021697
CUYAH_000021199	CUYAH_000021451	CUYAH_000021699
CUYAH_000021200	CUYAH_000021453	CUYAH_000021700
CUYAH_000021202	CUYAH_000021460	CUYAH_000021705
CUYAH_000021204	CUYAH_000021462	CUYAH_000021711
CUYAH_000021206	CUYAH_000021464	CUYAH_000021713
CUYAH_000021208	CUYAH_000021468	CUYAH_000021714
CUYAH_000021210	CUYAH_000021481	CUYAH_000021737
CUYAH_000021212	CUYAH_000021492	CUYAH_000021740
CUYAH_000021215	CUYAH_000021498	CUYAH_000021744
CUYAH_000021222	CUYAH_000021501	CUYAH_000021756
CUYAH_000021239	CUYAH_000021504	CUYAH_000021761
CUYAH_000021241	CUYAH_000021514	CUYAH_000021763
CUYAH_000021255	CUYAH_000021524	CUYAH_000021765
CUYAH_000021256	CUYAH_000021527	CUYAH_000021766
CUYAH_000021259	CUYAH_000021530	CUYAH_000021771
CUYAH_000021260	CUYAH_000021532	CUYAH_000021772
CUYAH_000021275	CUYAH_000021534	CUYAH_000021774
CUYAH_000021276	CUYAH_000021536	CUYAH_000021781
CUYAH_000021280	CUYAH_000021539	CUYAH_000021782
CUYAH_000021290	CUYAH_000021541	CUYAH_000021791
CUYAH_000021291	CUYAH_000021544	CUYAH_000021793
CUYAH_000021296	CUYAH_000021548	CUYAH_000021796
CUYAH_000021306	CUYAH_000021553	CUYAH_000021804
CUYAH_000021308	CUYAH_000021561	CUYAH_000021807
CUYAH_000021310	CUYAH_000021573	CUYAH_000021820
CUYAH_000021315	CUYAH_000021575	CUYAH_000021832
CUYAH_000021317	CUYAH_000021580	CUYAH_000021837
CUYAH_000021319	CUYAH_000021582	CUYAH_000021840
CUYAH_000021321	CUYAH_000021588	CUYAH_000021845
CUYAH_000021323	CUYAH_000021591	CUYAH_000021847
CUYAH_000021331	CUYAH_000021593	CUYAH_000021853
CUYAH_000021332	CUYAH_000021597	CUYAH_000021855
CUYAH_000021343	CUYAH_000021599	CUYAH_000021860
CUYAH_000021348	CUYAH_000021601	CUYAH_000021865
CUYAH_000021357	CUYAH_000021607	CUYAH_000021867
CUYAH_000021362	CUYAH_000021620	CUYAH_000021868
CUYAH_000021373	CUYAH_000021630	CUYAH_000021870
CUYAH_000021380	CUYAH_000021647	CUYAH_000021872

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000021878	CUYAH_000022123	CUYAH_000022302
CUYAH_000021880	CUYAH_000022125	CUYAH_000022303
CUYAH_000021883	CUYAH_000022126	CUYAH_000022305
CUYAH_000021885	CUYAH_000022130	CUYAH_000022311
CUYAH_000021889	CUYAH_000022135	CUYAH_000022319
CUYAH_000021894	CUYAH_000022137	CUYAH_000022320
CUYAH_000021902	CUYAH_000022142	CUYAH_000022343
CUYAH_000021904	CUYAH_000022144	CUYAH_000022352
CUYAH_000021905	CUYAH_000022149	CUYAH_000022355
CUYAH_000021907	CUYAH_000022154	CUYAH_000022359
CUYAH_000021908	CUYAH_000022156	CUYAH_000022362
CUYAH_000021910	CUYAH_000022160	CUYAH_000022364
CUYAH_000021916	CUYAH_000022164	CUYAH_000022367
CUYAH_000021917	CUYAH_000022165	CUYAH_000022368
CUYAH_000021940	CUYAH_000022167	CUYAH_000022370
CUYAH_000021953	CUYAH_000022172	CUYAH_000022375
CUYAH_000021959	CUYAH_000022176	CUYAH_000022379
CUYAH_000021962	CUYAH_000022182	CUYAH_000022381
CUYAH_000021968	CUYAH_000022184	CUYAH_000022389
CUYAH_000021969	CUYAH_000022185	CUYAH_000022397
CUYAH_000021975	CUYAH_000022191	CUYAH_000022412
CUYAH_000021986	CUYAH_000022192	CUYAH_000022413
CUYAH_000021991	CUYAH_000022197	CUYAH_000022417
CUYAH_000021992	CUYAH_000022201	CUYAH_000022419
CUYAH_000021994	CUYAH_000022204	CUYAH_000022422
CUYAH_000021999	CUYAH_000022206	CUYAH_000022423
CUYAH_000022000	CUYAH_000022209	CUYAH_000022435
CUYAH_000022004	CUYAH_000022215	CUYAH_000022438
CUYAH_000022020	CUYAH_000022219	CUYAH_000022444
CUYAH_000022023	CUYAH_000022222	CUYAH_000022453
CUYAH_000022025	CUYAH_000022226	CUYAH_000022462
CUYAH_000022028	CUYAH_000022237	CUYAH_000022464
CUYAH_000022044	CUYAH_000022239	CUYAH_000022468
CUYAH_000022050	CUYAH_000022249	CUYAH_000022472
CUYAH_000022053	CUYAH_000022251	CUYAH_000022477
CUYAH_000022057	CUYAH_000022252	CUYAH_000022481
CUYAH_000022059	CUYAH_000022254	CUYAH_000022483
CUYAH_000022061	CUYAH_000022255	CUYAH_000022485
CUYAH_000022064	CUYAH_000022261	CUYAH_000022491
CUYAH_000022066	CUYAH_000022266	CUYAH_000022492
CUYAH_000022076	CUYAH_000022268	CUYAH_000022496
CUYAH_000022081	CUYAH_000022270	CUYAH_000022497
CUYAH_000022086	CUYAH_000022274	CUYAH_000022500
CUYAH_000022092	CUYAH_000022280	CUYAH_000022509
CUYAH_000022098	CUYAH_000022282	CUYAH_000022513
CUYAH_000022103	CUYAH_000022284	CUYAH_000022515
CUYAH_000022106	CUYAH_000022292	CUYAH_000022516
CUYAH_000022108	CUYAH_000022293	CUYAH_000022517
CUYAH_000022111	CUYAH_000022295	CUYAH_000022521
CUYAH_000022118	CUYAH_000022298	CUYAH_000022538
CUYAH_000022120	CUYAH_000022300	CUYAH_000022544
CUYAH_000022122	CUYAH_000022301	CUYAH_000022549

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000022555	CUYAH_000022826	CUYAH_000023049
CUYAH_000022561	CUYAH_000022827	CUYAH_000023051
CUYAH_000022564	CUYAH_000022829	CUYAH_000023053
CUYAH_000022566	CUYAH_000022831	CUYAH_000023075
CUYAH_000022568	CUYAH_000022833	CUYAH_000023079
CUYAH_000022581	CUYAH_000022837	CUYAH_000023081
CUYAH_000022582	CUYAH_000022839	CUYAH_000023083
CUYAH_000022585	CUYAH_000022840	CUYAH_000023088
CUYAH_000022589	CUYAH_000022844	CUYAH_000023092
CUYAH_000022590	CUYAH_000022849	CUYAH_000023098
CUYAH_000022592	CUYAH_000022855	CUYAH_000023106
CUYAH_000022594	CUYAH_000022859	CUYAH_000023107
CUYAH_000022596	CUYAH_000022863	CUYAH_000023117
CUYAH_000022599	CUYAH_000022866	CUYAH_000023128
CUYAH_000022601	CUYAH_000022867	CUYAH_000023132
CUYAH_000022605	CUYAH_000022869	CUYAH_000023142
CUYAH_000022606	CUYAH_000022871	CUYAH_000023143
CUYAH_000022611	CUYAH_000022872	CUYAH_000023145
CUYAH_000022618	CUYAH_000022877	CUYAH_000023148
CUYAH_000022620	CUYAH_000022880	CUYAH_000023161
CUYAH_000022622	CUYAH_000022882	CUYAH_000023163
CUYAH_000022625	CUYAH_000022896	CUYAH_000023168
CUYAH_000022627	CUYAH_000022901	CUYAH_000023175
CUYAH_000022630	CUYAH_000022915	CUYAH_000023178
CUYAH_000022633	CUYAH_000022925	CUYAH_000023181
CUYAH_000022636	CUYAH_000022927	CUYAH_000023194
CUYAH_000022640	CUYAH_000022935	CUYAH_000023196
CUYAH_000022647	CUYAH_000022943	CUYAH_000023197
CUYAH_000022649	CUYAH_000022947	CUYAH_000023199
CUYAH_000022657	CUYAH_000022949	CUYAH_000023207
CUYAH_000022659	CUYAH_000022953	CUYAH_000023217
CUYAH_000022662	CUYAH_000022959	CUYAH_000023219
CUYAH_000022667	CUYAH_000022961	CUYAH_000023223
CUYAH_000022672	CUYAH_000022971	CUYAH_000023224
CUYAH_000022683	CUYAH_000022977	CUYAH_000023233
CUYAH_000022694	CUYAH_000022980	CUYAH_000023236
CUYAH_000022698	CUYAH_000022985	CUYAH_000023238
CUYAH_000022705	CUYAH_000022990	CUYAH_000023240
CUYAH_000022713	CUYAH_000022993	CUYAH_000023242
CUYAH_000022728	CUYAH_000022994	CUYAH_000023246
CUYAH_000022730	CUYAH_000023002	CUYAH_000023248
CUYAH_000022746	CUYAH_000023009	CUYAH_000023258
CUYAH_000022761	CUYAH_000023011	CUYAH_000023263
CUYAH_000022766	CUYAH_000023016	CUYAH_000023268
CUYAH_000022767	CUYAH_000023017	CUYAH_000023272
CUYAH_000022768	CUYAH_000023028	CUYAH_000023274
CUYAH_000022777	CUYAH_000023035	CUYAH_000023278
CUYAH_000022780	CUYAH_000023037	CUYAH_000023280
CUYAH_000022786	CUYAH_000023039	CUYAH_000023283
CUYAH_000022791	CUYAH_000023043	CUYAH_000023290
CUYAH_000022812	CUYAH_000023045	CUYAH_000023291
CUYAH_000022817	CUYAH_000023047	CUYAH_000023293

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000023302	CUYAH_000023551	CUYAH_000023828
CUYAH_000023308	CUYAH_000023553	CUYAH_000023830
CUYAH_000023313	CUYAH_000023557	CUYAH_000023835
CUYAH_000023319	CUYAH_000023571	CUYAH_000023838
CUYAH_000023321	CUYAH_000023575	CUYAH_000023840
CUYAH_000023333	CUYAH_000023578	CUYAH_000023843
CUYAH_000023335	CUYAH_000023580	CUYAH_000023846
CUYAH_000023336	CUYAH_000023582	CUYAH_000023848
CUYAH_000023338	CUYAH_000023586	CUYAH_000023852
CUYAH_000023343	CUYAH_000023590	CUYAH_000023856
CUYAH_000023345	CUYAH_000023592	CUYAH_000023865
CUYAH_000023358	CUYAH_000023593	CUYAH_000023872
CUYAH_000023359	CUYAH_000023609	CUYAH_000023876
CUYAH_000023365	CUYAH_000023613	CUYAH_000023878
CUYAH_000023374	CUYAH_000023618	CUYAH_000023882
CUYAH_000023381	CUYAH_000023619	CUYAH_000023884
CUYAH_000023385	CUYAH_000023621	CUYAH_000023890
CUYAH_000023392	CUYAH_000023643	CUYAH_000023899
CUYAH_000023403	CUYAH_000023647	CUYAH_000023907
CUYAH_000023406	CUYAH_000023649	CUYAH_000023910
CUYAH_000023411	CUYAH_000023668	CUYAH_000023911
CUYAH_000023419	CUYAH_000023671	CUYAH_000023915
CUYAH_000023421	CUYAH_000023673	CUYAH_000023917
CUYAH_000023423	CUYAH_000023679	CUYAH_000023919
CUYAH_000023424	CUYAH_000023690	CUYAH_000023922
CUYAH_000023428	CUYAH_000023692	CUYAH_000023947
CUYAH_000023435	CUYAH_000023696	CUYAH_000023954
CUYAH_000023436	CUYAH_000023698	CUYAH_000023957
CUYAH_000023450	CUYAH_000023705	CUYAH_000023960
CUYAH_000023454	CUYAH_000023716	CUYAH_000023969
CUYAH_000023461	CUYAH_000023720	CUYAH_000023971
CUYAH_000023463	CUYAH_000023727	CUYAH_000023974
CUYAH_000023465	CUYAH_000023730	CUYAH_000023977
CUYAH_000023467	CUYAH_000023733	CUYAH_000023986
CUYAH_000023478	CUYAH_000023735	CUYAH_000023996
CUYAH_000023488	CUYAH_000023737	CUYAH_000023998
CUYAH_000023490	CUYAH_000023748	CUYAH_000024000
CUYAH_000023493	CUYAH_000023753	CUYAH_000024003
CUYAH_000023495	CUYAH_000023755	CUYAH_000024008
CUYAH_000023497	CUYAH_000023758	CUYAH_000024014
CUYAH_000023498	CUYAH_000023771	CUYAH_000024018
CUYAH_000023509	CUYAH_000023778	CUYAH_000024020
CUYAH_000023510	CUYAH_000023780	CUYAH_000024022
CUYAH_000023511	CUYAH_000023787	CUYAH_000024026
CUYAH_000023520	CUYAH_000023789	CUYAH_000024035
CUYAH_000023528	CUYAH_000023799	CUYAH_000024039
CUYAH_000023530	CUYAH_000023801	CUYAH_000024046
CUYAH_000023533	CUYAH_000023813	CUYAH_000024048
CUYAH_000023539	CUYAH_000023815	CUYAH_000024054
CUYAH_000023543	CUYAH_000023817	CUYAH_000024064
CUYAH_000023545	CUYAH_000023820	CUYAH_000024067
CUYAH_000023550	CUYAH_000023822	CUYAH_000024071

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000024077	CUYAH_000024298	CUYAH_000024505
CUYAH_000024080	CUYAH_000024306	CUYAH_000024507
CUYAH_000024084	CUYAH_000024310	CUYAH_000024512
CUYAH_000024086	CUYAH_000024322	CUYAH_000024515
CUYAH_000024088	CUYAH_000024326	CUYAH_000024522
CUYAH_000024090	CUYAH_000024330	CUYAH_000024525
CUYAH_000024092	CUYAH_000024332	CUYAH_000024530
CUYAH_000024111	CUYAH_000024333	CUYAH_000024541
CUYAH_000024113	CUYAH_000024334	CUYAH_000024546
CUYAH_000024114	CUYAH_000024336	CUYAH_000024551
CUYAH_000024115	CUYAH_000024338	CUYAH_000024554
CUYAH_000024116	CUYAH_000024348	CUYAH_000024565
CUYAH_000024120	CUYAH_000024349	CUYAH_000024566
CUYAH_000024128	CUYAH_000024350	CUYAH_000024571
CUYAH_000024139	CUYAH_000024354	CUYAH_000024578
CUYAH_000024142	CUYAH_000024362	CUYAH_000024580
CUYAH_000024144	CUYAH_000024364	CUYAH_000024583
CUYAH_000024151	CUYAH_000024368	CUYAH_000024588
CUYAH_000024152	CUYAH_000024369	CUYAH_000024591
CUYAH_000024156	CUYAH_000024371	CUYAH_000024610
CUYAH_000024158	CUYAH_000024376	CUYAH_000024613
CUYAH_000024163	CUYAH_000024387	CUYAH_000024615
CUYAH_000024165	CUYAH_000024389	CUYAH_000024621
CUYAH_000024167	CUYAH_000024391	CUYAH_000024632
CUYAH_000024172	CUYAH_000024394	CUYAH_000024634
CUYAH_000024173	CUYAH_000024397	CUYAH_000024637
CUYAH_000024175	CUYAH_000024403	CUYAH_000024639
CUYAH_000024177	CUYAH_000024405	CUYAH_000024649
CUYAH_000024181	CUYAH_000024407	CUYAH_000024651
CUYAH_000024189	CUYAH_000024409	CUYAH_000024657
CUYAH_000024196	CUYAH_000024414	CUYAH_000024676
CUYAH_000024200	CUYAH_000024420	CUYAH_000024681
CUYAH_000024206	CUYAH_000024422	CUYAH_000024688
CUYAH_000024224	CUYAH_000024427	CUYAH_000024696
CUYAH_000024227	CUYAH_000024434	CUYAH_000024703
CUYAH_000024233	CUYAH_000024440	CUYAH_000024712
CUYAH_000024245	CUYAH_000024445	CUYAH_000024722
CUYAH_000024258	CUYAH_000024447	CUYAH_000024732
CUYAH_000024263	CUYAH_000024457	CUYAH_000024734
CUYAH_000024265	CUYAH_000024466	CUYAH_000024736
CUYAH_000024266	CUYAH_000024479	CUYAH_000024737
CUYAH_000024267	CUYAH_000024482	CUYAH_000024741
CUYAH_000024269	CUYAH_000024484	CUYAH_000024744
CUYAH_000024270	CUYAH_000024485	CUYAH_000024747
CUYAH_000024271	CUYAH_000024486	CUYAH_000024749
CUYAH_000024278	CUYAH_000024487	CUYAH_000024752
CUYAH_000024280	CUYAH_000024488	CUYAH_000024756
CUYAH_000024283	CUYAH_000024490	CUYAH_000024764
CUYAH_000024285	CUYAH_000024491	CUYAH_000024767
CUYAH_000024292	CUYAH_000024493	CUYAH_000024771
CUYAH_000024294	CUYAH_000024498	CUYAH_000024773
CUYAH_000024296	CUYAH_000024500	CUYAH_000024775

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000024782	CUYAH_000025015	CUYAH_000025355
CUYAH_000024789	CUYAH_000025024	CUYAH_000025373
CUYAH_000024791	CUYAH_000025026	CUYAH_000025378
CUYAH_000024793	CUYAH_000025030	CUYAH_000025386
CUYAH_000024795	CUYAH_000025032	CUYAH_000025389
CUYAH_000024801	CUYAH_000025035	CUYAH_000025396
CUYAH_000024802	CUYAH_000025037	CUYAH_000025402
CUYAH_000024809	CUYAH_000025103	CUYAH_000025409
CUYAH_000024814	CUYAH_000025105	CUYAH_000025410
CUYAH_000024816	CUYAH_000025118	CUYAH_000025415
CUYAH_000024826	CUYAH_000025129	CUYAH_000025417
CUYAH_000024851	CUYAH_000025135	CUYAH_000025423
CUYAH_000024856	CUYAH_000025139	CUYAH_000025425
CUYAH_000024874	CUYAH_000025142	CUYAH_000025426
CUYAH_000024875	CUYAH_000025177	CUYAH_000025433
CUYAH_000024881	CUYAH_000025178	CUYAH_000025438
CUYAH_000024889	CUYAH_000025180	CUYAH_000025440
CUYAH_000024891	CUYAH_000025184	CUYAH_000025442
CUYAH_000024893	CUYAH_000025187	CUYAH_000025459
CUYAH_000024898	CUYAH_000025196	CUYAH_000025468
CUYAH_000024913	CUYAH_000025197	CUYAH_000025470
CUYAH_000024917	CUYAH_000025202	CUYAH_000025475
CUYAH_000024922	CUYAH_000025208	CUYAH_000025482
CUYAH_000024923	CUYAH_000025209	CUYAH_000025483
CUYAH_000024933	CUYAH_000025211	CUYAH_000025485
CUYAH_000024936	CUYAH_000025215	CUYAH_000025489
CUYAH_000024938	CUYAH_000025218	CUYAH_000025498
CUYAH_000024940	CUYAH_000025225	CUYAH_000025502
CUYAH_000024943	CUYAH_000025229	CUYAH_000025504
CUYAH_000024944	CUYAH_000025237	CUYAH_000025506
CUYAH_000024946	CUYAH_000025242	CUYAH_000025523
CUYAH_000024954	CUYAH_000025250	CUYAH_000025529
CUYAH_000024956	CUYAH_000025255	CUYAH_000025531
CUYAH_000024957	CUYAH_000025259	CUYAH_000025539
CUYAH_000024968	CUYAH_000025266	CUYAH_000025549
CUYAH_000024970	CUYAH_000025268	CUYAH_000025557
CUYAH_000024972	CUYAH_000025272	CUYAH_000025560
CUYAH_000024974	CUYAH_000025276	CUYAH_000025562
CUYAH_000024976	CUYAH_000025279	CUYAH_000025563
CUYAH_000024987	CUYAH_000025284	CUYAH_000025564
CUYAH_000024989	CUYAH_000025291	CUYAH_000025570
CUYAH_000024991	CUYAH_000025296	CUYAH_000025571
CUYAH_000024992	CUYAH_000025319	CUYAH_000025577
CUYAH_000024994	CUYAH_000025323	CUYAH_000025578
CUYAH_000024995	CUYAH_000025325	CUYAH_000025580
CUYAH_000024996	CUYAH_000025328	CUYAH_000025584
CUYAH_000024997	CUYAH_000025331	CUYAH_000025586
CUYAH_000024999	CUYAH_000025333	CUYAH_000025590
CUYAH_000025001	CUYAH_000025335	CUYAH_000025595
CUYAH_000025003	CUYAH_000025343	CUYAH_000025597
CUYAH_000025010	CUYAH_000025346	CUYAH_000025599
CUYAH_000025012	CUYAH_000025351	CUYAH_000025601

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000025603	CUYAH_000025893	CUYAH_000026031
CUYAH_000025605	CUYAH_000025894	CUYAH_000026032
CUYAH_000025607	CUYAH_000025895	CUYAH_000026036
CUYAH_000025609	CUYAH_000025896	CUYAH_000026039
CUYAH_000025613	CUYAH_000025903	CUYAH_000026040
CUYAH_000025614	CUYAH_000025907	CUYAH_000026045
CUYAH_000025615	CUYAH_000025908	CUYAH_000026048
CUYAH_000025629	CUYAH_000025909	CUYAH_000026051
CUYAH_000025631	CUYAH_000025910	CUYAH_000026053
CUYAH_000025633	CUYAH_000025911	CUYAH_000026056
CUYAH_000025634	CUYAH_000025912	CUYAH_000026057
CUYAH_000025644	CUYAH_000025921	CUYAH_000026062
CUYAH_000025648	CUYAH_000025923	CUYAH_000026065
CUYAH_000025655	CUYAH_000025928	CUYAH_000026070
CUYAH_000025663	CUYAH_000025930	CUYAH_000026071
CUYAH_000025665	CUYAH_000025934	CUYAH_000026073
CUYAH_000025668	CUYAH_000025937	CUYAH_000026074
CUYAH_000025671	CUYAH_000025938	CUYAH_000026079
CUYAH_000025674	CUYAH_000025941	CUYAH_000026080
CUYAH_000025675	CUYAH_000025944	CUYAH_000026082
CUYAH_000025677	CUYAH_000025948	CUYAH_000026083
CUYAH_000025683	CUYAH_000025949	CUYAH_000026087
CUYAH_000025704	CUYAH_000025951	CUYAH_000026092
CUYAH_000025708	CUYAH_000025961	CUYAH_000026093
CUYAH_000025710	CUYAH_000025964	CUYAH_000026095
CUYAH_000025712	CUYAH_000025965	CUYAH_000026100
CUYAH_000025732	CUYAH_000025966	CUYAH_000026101
CUYAH_000025750	CUYAH_000025969	CUYAH_000026102
CUYAH_000025769	CUYAH_000025970	CUYAH_000026110
CUYAH_000025777	CUYAH_000025971	CUYAH_000026111
CUYAH_000025784	CUYAH_000025972	CUYAH_000026112
CUYAH_000025785	CUYAH_000025978	CUYAH_000026116
CUYAH_000025790	CUYAH_000025980	CUYAH_000026117
CUYAH_000025795	CUYAH_000025985	CUYAH_000026119
CUYAH_000025797	CUYAH_000025988	CUYAH_000026120
CUYAH_000025820	CUYAH_000025989	CUYAH_000026122
CUYAH_000025824	CUYAH_000025991	CUYAH_000026123
CUYAH_000025827	CUYAH_000026001	CUYAH_000026124
CUYAH_000025829	CUYAH_000026003	CUYAH_000026125
CUYAH_000025834	CUYAH_000026005	CUYAH_000026126
CUYAH_000025839	CUYAH_000026006	CUYAH_000026129
CUYAH_000025841	CUYAH_000026015	CUYAH_000026141
CUYAH_000025842	CUYAH_000026016	CUYAH_000026145
CUYAH_000025844	CUYAH_000026020	CUYAH_000026147
CUYAH_000025849	CUYAH_000026021	CUYAH_000026148
CUYAH_000025858	CUYAH_000026022	CUYAH_000026150
CUYAH_000025867	CUYAH_000026023	CUYAH_000026161
CUYAH_000025871	CUYAH_000026024	CUYAH_000026162
CUYAH_000025873	CUYAH_000026025	CUYAH_000026167
CUYAH_000025876	CUYAH_000026026	CUYAH_000026168
CUYAH_000025887	CUYAH_000026027	CUYAH_000026169
CUYAH_000025888	CUYAH_000026028	CUYAH_000026170

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000026171	CUYAH_000026364	CUYAH_000026563
CUYAH_000026176	CUYAH_000026368	CUYAH_000026567
CUYAH_000026179	CUYAH_000026378	CUYAH_000026568
CUYAH_000026180	CUYAH_000026382	CUYAH_000026569
CUYAH_000026182	CUYAH_000026383	CUYAH_000026576
CUYAH_000026184	CUYAH_000026385	CUYAH_000026581
CUYAH_000026185	CUYAH_000026386	CUYAH_000026582
CUYAH_000026186	CUYAH_000026387	CUYAH_000026596
CUYAH_000026195	CUYAH_000026388	CUYAH_000026597
CUYAH_000026199	CUYAH_000026389	CUYAH_000026598
CUYAH_000026200	CUYAH_000026390	CUYAH_000026600
CUYAH_000026205	CUYAH_000026405	CUYAH_000026601
CUYAH_000026208	CUYAH_000026407	CUYAH_000026603
CUYAH_000026213	CUYAH_000026415	CUYAH_000026604
CUYAH_000026219	CUYAH_000026416	CUYAH_000026605
CUYAH_000026228	CUYAH_000026420	CUYAH_000026606
CUYAH_000026229	CUYAH_000026421	CUYAH_000026607
CUYAH_000026233	CUYAH_000026438	CUYAH_000026610
CUYAH_000026239	CUYAH_000026439	CUYAH_000026611
CUYAH_000026245	CUYAH_000026440	CUYAH_000026612
CUYAH_000026246	CUYAH_000026441	CUYAH_000026614
CUYAH_000026248	CUYAH_000026442	CUYAH_000026619
CUYAH_000026251	CUYAH_000026448	CUYAH_000026620
CUYAH_000026252	CUYAH_000026454	CUYAH_000026625
CUYAH_000026256	CUYAH_000026462	CUYAH_000026632
CUYAH_000026257	CUYAH_000026463	CUYAH_000026639
CUYAH_000026262	CUYAH_000026464	CUYAH_000026640
CUYAH_000026278	CUYAH_000026465	CUYAH_000026642
CUYAH_000026280	CUYAH_000026466	CUYAH_000026645
CUYAH_000026282	CUYAH_000026467	CUYAH_000026646
CUYAH_000026289	CUYAH_000026468	CUYAH_000026647
CUYAH_000026291	CUYAH_000026474	CUYAH_000026677
CUYAH_000026297	CUYAH_000026476	CUYAH_000026680
CUYAH_000026298	CUYAH_000026477	CUYAH_000026682
CUYAH_000026300	CUYAH_000026494	CUYAH_000026686
CUYAH_000026301	CUYAH_000026500	CUYAH_000026687
CUYAH_000026308	CUYAH_000026505	CUYAH_000026693
CUYAH_000026309	CUYAH_000026506	CUYAH_000026694
CUYAH_000026310	CUYAH_000026507	CUYAH_000026701
CUYAH_000026311	CUYAH_000026508	CUYAH_000026704
CUYAH_000026313	CUYAH_000026509	CUYAH_000026721
CUYAH_000026319	CUYAH_000026513	CUYAH_000026722
CUYAH_000026320	CUYAH_000026514	CUYAH_000026724
CUYAH_000026327	CUYAH_000026521	CUYAH_000026729
CUYAH_000026328	CUYAH_000026522	CUYAH_000026732
CUYAH_000026333	CUYAH_000026527	CUYAH_000026738
CUYAH_000026334	CUYAH_000026528	CUYAH_000026745
CUYAH_000026339	CUYAH_000026532	CUYAH_000026747
CUYAH_000026342	CUYAH_000026533	CUYAH_000026749
CUYAH_000026347	CUYAH_000026537	CUYAH_000026750
CUYAH_000026355	CUYAH_000026555	CUYAH_000026751
CUYAH_000026357	CUYAH_000026557	CUYAH_000026754

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000026756	CUYAH_000026907	CUYAH_000027068
CUYAH_000026758	CUYAH_000026912	CUYAH_000027069
CUYAH_000026760	CUYAH_000026913	CUYAH_000027071
CUYAH_000026762	CUYAH_000026914	CUYAH_000027072
CUYAH_000026764	CUYAH_000026915	CUYAH_000027080
CUYAH_000026766	CUYAH_000026916	CUYAH_000027087
CUYAH_000026767	CUYAH_000026917	CUYAH_000027095
CUYAH_000026768	CUYAH_000026918	CUYAH_000027103
CUYAH_000026769	CUYAH_000026919	CUYAH_000027116
CUYAH_000026782	CUYAH_000026922	CUYAH_000027118
CUYAH_000026792	CUYAH_000026923	CUYAH_000027120
CUYAH_000026798	CUYAH_000026924	CUYAH_000027122
CUYAH_000026805	CUYAH_000026925	CUYAH_000027124
CUYAH_000026807	CUYAH_000026927	CUYAH_000027126
CUYAH_000026808	CUYAH_000026936	CUYAH_000027128
CUYAH_000026809	CUYAH_000026941	CUYAH_000027129
CUYAH_000026811	CUYAH_000026942	CUYAH_000027134
CUYAH_000026813	CUYAH_000026943	CUYAH_000027136
CUYAH_000026815	CUYAH_000026945	CUYAH_000027138
CUYAH_000026817	CUYAH_000026950	CUYAH_000027139
CUYAH_000026819	CUYAH_000026957	CUYAH_000027141
CUYAH_000026821	CUYAH_000026958	CUYAH_000027143
CUYAH_000026828	CUYAH_000026963	CUYAH_000027147
CUYAH_000026836	CUYAH_000026967	CUYAH_000027149
CUYAH_000026845	CUYAH_000026968	CUYAH_000027150
CUYAH_000026846	CUYAH_000026969	CUYAH_000027161
CUYAH_000026847	CUYAH_000026972	CUYAH_000027162
CUYAH_000026848	CUYAH_000026973	CUYAH_000027165
CUYAH_000026851	CUYAH_000026978	CUYAH_000027166
CUYAH_000026854	CUYAH_000026979	CUYAH_000027168
CUYAH_000026855	CUYAH_000026991	CUYAH_000027169
CUYAH_000026857	CUYAH_000026997	CUYAH_000027170
CUYAH_000026861	CUYAH_000026998	CUYAH_000027171
CUYAH_000026862	CUYAH_000026999	CUYAH_000027176
CUYAH_000026863	CUYAH_000027000	CUYAH_000027181
CUYAH_000026864	CUYAH_000027002	CUYAH_000027186
CUYAH_000026875	CUYAH_000027008	CUYAH_000027189
CUYAH_000026876	CUYAH_000027017	CUYAH_000027194
CUYAH_000026877	CUYAH_000027020	CUYAH_000027199
CUYAH_000026880	CUYAH_000027027	CUYAH_000027200
CUYAH_000026885	CUYAH_000027028	CUYAH_000027201
CUYAH_000026887	CUYAH_000027030	CUYAH_000027208
CUYAH_000026888	CUYAH_000027033	CUYAH_000027209
CUYAH_000026890	CUYAH_000027039	CUYAH_000027215
CUYAH_000026893	CUYAH_000027040	CUYAH_000027222
CUYAH_000026895	CUYAH_000027041	CUYAH_000027224
CUYAH_000026896	CUYAH_000027045	CUYAH_000027225
CUYAH_000026899	CUYAH_000027051	CUYAH_000027230
CUYAH_000026900	CUYAH_000027061	CUYAH_000027231
CUYAH_000026903	CUYAH_000027062	CUYAH_000027234
CUYAH_000026904	CUYAH_000027066	CUYAH_000027235
CUYAH_000026906	CUYAH_000027067	CUYAH_000027236

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000027248	CUYAH_000027458	CUYAH_000027674
CUYAH_000027249	CUYAH_000027460	CUYAH_000027684
CUYAH_000027253	CUYAH_000027474	CUYAH_000027688
CUYAH_000027258	CUYAH_000027476	CUYAH_000027695
CUYAH_000027260	CUYAH_000027479	CUYAH_000027700
CUYAH_000027262	CUYAH_000027480	CUYAH_000027702
CUYAH_000027269	CUYAH_000027481	CUYAH_000027703
CUYAH_000027276	CUYAH_000027482	CUYAH_000027706
CUYAH_000027281	CUYAH_000027483	CUYAH_000027708
CUYAH_000027289	CUYAH_000027484	CUYAH_000027709
CUYAH_000027290	CUYAH_000027485	CUYAH_000027713
CUYAH_000027293	CUYAH_000027486	CUYAH_000027722
CUYAH_000027305	CUYAH_000027487	CUYAH_000027723
CUYAH_000027314	CUYAH_000027488	CUYAH_000027724
CUYAH_000027316	CUYAH_000027489	CUYAH_000027726
CUYAH_000027317	CUYAH_000027490	CUYAH_000027732
CUYAH_000027318	CUYAH_000027491	CUYAH_000027733
CUYAH_000027325	CUYAH_000027492	CUYAH_000027734
CUYAH_000027326	CUYAH_000027493	CUYAH_000027739
CUYAH_000027327	CUYAH_000027495	CUYAH_000027740
CUYAH_000027333	CUYAH_000027506	CUYAH_000027741
CUYAH_000027339	CUYAH_000027525	CUYAH_000027742
CUYAH_000027340	CUYAH_000027531	CUYAH_000027743
CUYAH_000027346	CUYAH_000027533	CUYAH_000027745
CUYAH_000027356	CUYAH_000027535	CUYAH_000027757
CUYAH_000027357	CUYAH_000027536	CUYAH_000027758
CUYAH_000027363	CUYAH_000027537	CUYAH_000027761
CUYAH_000027364	CUYAH_000027541	CUYAH_000027762
CUYAH_000027373	CUYAH_000027548	CUYAH_000027764
CUYAH_000027375	CUYAH_000027555	CUYAH_000027765
CUYAH_000027376	CUYAH_000027556	CUYAH_000027767
CUYAH_000027382	CUYAH_000027557	CUYAH_000027769
CUYAH_000027384	CUYAH_000027562	CUYAH_000027770
CUYAH_000027390	CUYAH_000027567	CUYAH_000027778
CUYAH_000027392	CUYAH_000027568	CUYAH_000027781
CUYAH_000027394	CUYAH_000027575	CUYAH_000027782
CUYAH_000027399	CUYAH_000027576	CUYAH_000027794
CUYAH_000027400	CUYAH_000027577	CUYAH_000027795
CUYAH_000027403	CUYAH_000027579	CUYAH_000027800
CUYAH_000027404	CUYAH_000027591	CUYAH_000027802
CUYAH_000027406	CUYAH_000027603	CUYAH_000027806
CUYAH_000027412	CUYAH_000027615	CUYAH_000027814
CUYAH_000027415	CUYAH_000027627	CUYAH_000027816
CUYAH_000027420	CUYAH_000027632	CUYAH_000027827
CUYAH_000027428	CUYAH_000027633	CUYAH_000027833
CUYAH_000027432	CUYAH_000027636	CUYAH_000027836
CUYAH_000027434	CUYAH_000027637	CUYAH_000027838
CUYAH_000027438	CUYAH_000027644	CUYAH_000027839
CUYAH_000027442	CUYAH_000027645	CUYAH_000027841
CUYAH_000027450	CUYAH_000027649	CUYAH_000027842
CUYAH_000027451	CUYAH_000027654	CUYAH_000027843
CUYAH_000027452	CUYAH_000027664	CUYAH_000027846

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000027849	CUYAH_000028012	CUYAH_000028182
CUYAH_000027850	CUYAH_000028022	CUYAH_000028183
CUYAH_000027851	CUYAH_000028024	CUYAH_000028184
CUYAH_000027854	CUYAH_000028026	CUYAH_000028185
CUYAH_000027855	CUYAH_000028030	CUYAH_000028186
CUYAH_000027856	CUYAH_000028034	CUYAH_000028203
CUYAH_000027857	CUYAH_000028035	CUYAH_000028218
CUYAH_000027860	CUYAH_000028036	CUYAH_000028219
CUYAH_000027863	CUYAH_000028046	CUYAH_000028221
CUYAH_000027864	CUYAH_000028049	CUYAH_000028222
CUYAH_000027865	CUYAH_000028050	CUYAH_000028223
CUYAH_000027872	CUYAH_000028051	CUYAH_000028224
CUYAH_000027873	CUYAH_000028053	CUYAH_000028229
CUYAH_000027876	CUYAH_000028054	CUYAH_000028230
CUYAH_000027879	CUYAH_000028057	CUYAH_000028234
CUYAH_000027880	CUYAH_000028065	CUYAH_000028237
CUYAH_000027882	CUYAH_000028069	CUYAH_000028242
CUYAH_000027889	CUYAH_000028071	CUYAH_000028243
CUYAH_000027894	CUYAH_000028073	CUYAH_000028244
CUYAH_000027895	CUYAH_000028076	CUYAH_000028245
CUYAH_000027896	CUYAH_000028077	CUYAH_000028252
CUYAH_000027897	CUYAH_000028078	CUYAH_000028254
CUYAH_000027898	CUYAH_000028082	CUYAH_000028255
CUYAH_000027902	CUYAH_000028083	CUYAH_000028256
CUYAH_000027905	CUYAH_000028090	CUYAH_000028258
CUYAH_000027906	CUYAH_000028093	CUYAH_000028260
CUYAH_000027907	CUYAH_000028095	CUYAH_000028266
CUYAH_000027908	CUYAH_000028100	CUYAH_000028267
CUYAH_000027910	CUYAH_000028103	CUYAH_000028270
CUYAH_000027924	CUYAH_000028104	CUYAH_000028271
CUYAH_000027929	CUYAH_000028105	CUYAH_000028277
CUYAH_000027930	CUYAH_000028106	CUYAH_000028283
CUYAH_000027932	CUYAH_000028107	CUYAH_000028292
CUYAH_000027933	CUYAH_000028108	CUYAH_000028294
CUYAH_000027936	CUYAH_000028110	CUYAH_000028295
CUYAH_000027937	CUYAH_000028111	CUYAH_000028296
CUYAH_000027938	CUYAH_000028113	CUYAH_000028297
CUYAH_000027945	CUYAH_000028118	CUYAH_000028303
CUYAH_000027946	CUYAH_000028119	CUYAH_000028304
CUYAH_000027947	CUYAH_000028127	CUYAH_000028307
CUYAH_000027948	CUYAH_000028136	CUYAH_000028316
CUYAH_000027953	CUYAH_000028137	CUYAH_000028322
CUYAH_000027954	CUYAH_000028138	CUYAH_000028324
CUYAH_000027955	CUYAH_000028140	CUYAH_000028331
CUYAH_000027959	CUYAH_000028142	CUYAH_000028333
CUYAH_000027961	CUYAH_000028143	CUYAH_000028334
CUYAH_000027965	CUYAH_000028150	CUYAH_000028336
CUYAH_000027966	CUYAH_000028165	CUYAH_000028337
CUYAH_000027999	CUYAH_000028178	CUYAH_000028338
CUYAH_000028004	CUYAH_000028179	CUYAH_000028340
CUYAH_000028007	CUYAH_000028180	CUYAH_000028346
CUYAH_000028009	CUYAH_000028181	CUYAH_000028347

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000028349	CUYAH_000028517	CUYAH_000028842
CUYAH_000028355	CUYAH_000028519	CUYAH_000028844
CUYAH_000028356	CUYAH_000028521	CUYAH_000028847
CUYAH_000028359	CUYAH_000028522	CUYAH_000028850
CUYAH_000028360	CUYAH_000028531	CUYAH_000028852
CUYAH_000028362	CUYAH_000028534	CUYAH_000028854
CUYAH_000028370	CUYAH_000028536	CUYAH_000028861
CUYAH_000028376	CUYAH_000028538	CUYAH_000028869
CUYAH_000028379	CUYAH_000028545	CUYAH_000028880
CUYAH_000028380	CUYAH_000028547	CUYAH_000028882
CUYAH_000028383	CUYAH_000028549	CUYAH_000028884
CUYAH_000028389	CUYAH_000028553	CUYAH_000028885
CUYAH_000028390	CUYAH_000028554	CUYAH_000028887
CUYAH_000028391	CUYAH_000028557	CUYAH_000028888
CUYAH_000028392	CUYAH_000028577	CUYAH_000028889
CUYAH_000028393	CUYAH_000028578	CUYAH_000028891
CUYAH_000028399	CUYAH_000028579	CUYAH_000028892
CUYAH_000028403	CUYAH_000028580	CUYAH_000028893
CUYAH_000028408	CUYAH_000028590	CUYAH_000028894
CUYAH_000028411	CUYAH_000028596	CUYAH_000028895
CUYAH_000028414	CUYAH_000028600	CUYAH_000028897
CUYAH_000028418	CUYAH_000028665	CUYAH_000028901
CUYAH_000028420	CUYAH_000028730	CUYAH_000028903
CUYAH_000028422	CUYAH_000028731	CUYAH_000028904
CUYAH_000028423	CUYAH_000028737	CUYAH_000028905
CUYAH_000028426	CUYAH_000028748	CUYAH_000028907
CUYAH_000028429	CUYAH_000028749	CUYAH_000028909
CUYAH_000028431	CUYAH_000028750	CUYAH_000028911
CUYAH_000028440	CUYAH_000028751	CUYAH_000028912
CUYAH_000028441	CUYAH_000028752	CUYAH_000028913
CUYAH_000028444	CUYAH_000028759	CUYAH_000028914
CUYAH_000028447	CUYAH_000028760	CUYAH_000028915
CUYAH_000028448	CUYAH_000028761	CUYAH_000028919
CUYAH_000028449	CUYAH_000028762	CUYAH_000028921
CUYAH_000028450	CUYAH_000028763	CUYAH_000028924
CUYAH_000028456	CUYAH_000028765	CUYAH_000028930
CUYAH_000028457	CUYAH_000028767	CUYAH_000028931
CUYAH_000028458	CUYAH_000028769	CUYAH_000028935
CUYAH_000028460	CUYAH_000028775	CUYAH_000028936
CUYAH_000028462	CUYAH_000028777	CUYAH_000028937
CUYAH_000028463	CUYAH_000028782	CUYAH_000028939
CUYAH_000028464	CUYAH_000028794	CUYAH_000028940
CUYAH_000028467	CUYAH_000028798	CUYAH_000028943
CUYAH_000028469	CUYAH_000028799	CUYAH_000028945
CUYAH_000028470	CUYAH_000028801	CUYAH_000028956
CUYAH_000028475	CUYAH_000028802	CUYAH_000028961
CUYAH_000028476	CUYAH_000028803	CUYAH_000028969
CUYAH_000028489	CUYAH_000028815	CUYAH_000028970
CUYAH_000028492	CUYAH_000028821	CUYAH_000028973
CUYAH_000028495	CUYAH_000028823	CUYAH_000028974
CUYAH_000028502	CUYAH_000028834	CUYAH_000028975
CUYAH_000028505	CUYAH_000028838	CUYAH_000028980

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000028988	CUYAH_000029156	CUYAH_000029312
CUYAH_000028992	CUYAH_000029157	CUYAH_000029316
CUYAH_000028994	CUYAH_000029158	CUYAH_000029320
CUYAH_000028996	CUYAH_000029166	CUYAH_000029326
CUYAH_000028997	CUYAH_000029180	CUYAH_000029332
CUYAH_000028998	CUYAH_000029181	CUYAH_000029336
CUYAH_000028999	CUYAH_000029185	CUYAH_000029338
CUYAH_000029000	CUYAH_000029187	CUYAH_000029339
CUYAH_000029003	CUYAH_000029190	CUYAH_000029340
CUYAH_000029008	CUYAH_000029195	CUYAH_000029342
CUYAH_000029010	CUYAH_000029197	CUYAH_000029351
CUYAH_000029019	CUYAH_000029206	CUYAH_000029365
CUYAH_000029020	CUYAH_000029209	CUYAH_000029370
CUYAH_000029021	CUYAH_000029211	CUYAH_000029371
CUYAH_000029031	CUYAH_000029213	CUYAH_000029380
CUYAH_000029032	CUYAH_000029215	CUYAH_000029386
CUYAH_000029034	CUYAH_000029217	CUYAH_000029393
CUYAH_000029035	CUYAH_000029219	CUYAH_000029417
CUYAH_000029044	CUYAH_000029221	CUYAH_000029424
CUYAH_000029053	CUYAH_000029223	CUYAH_000029428
CUYAH_000029057	CUYAH_000029225	CUYAH_000029429
CUYAH_000029061	CUYAH_000029227	CUYAH_000029430
CUYAH_000029063	CUYAH_000029229	CUYAH_000029431
CUYAH_000029064	CUYAH_000029230	CUYAH_000029432
CUYAH_000029065	CUYAH_000029237	CUYAH_000029433
CUYAH_000029066	CUYAH_000029238	CUYAH_000029435
CUYAH_000029068	CUYAH_000029239	CUYAH_000029441
CUYAH_000029069	CUYAH_000029241	CUYAH_000029442
CUYAH_000029070	CUYAH_000029242	CUYAH_000029444
CUYAH_000029073	CUYAH_000029243	CUYAH_000029445
CUYAH_000029075	CUYAH_000029244	CUYAH_000029447
CUYAH_000029081	CUYAH_000029245	CUYAH_000029449
CUYAH_000029083	CUYAH_000029246	CUYAH_000029454
CUYAH_000029084	CUYAH_000029247	CUYAH_000029470
CUYAH_000029086	CUYAH_000029256	CUYAH_000029475
CUYAH_000029087	CUYAH_000029258	CUYAH_000029491
CUYAH_000029093	CUYAH_000029259	CUYAH_000029495
CUYAH_000029095	CUYAH_000029260	CUYAH_000029496
CUYAH_000029096	CUYAH_000029261	CUYAH_000029503
CUYAH_000029097	CUYAH_000029263	CUYAH_000029517
CUYAH_000029098	CUYAH_000029264	CUYAH_000029525
CUYAH_000029103	CUYAH_000029273	CUYAH_000029539
CUYAH_000029107	CUYAH_000029274	CUYAH_000029540
CUYAH_000029119	CUYAH_000029275	CUYAH_000029541
CUYAH_000029120	CUYAH_000029285	CUYAH_000029542
CUYAH_000029129	CUYAH_000029287	CUYAH_000029569
CUYAH_000029135	CUYAH_000029289	CUYAH_000029570
CUYAH_000029139	CUYAH_000029293	CUYAH_000029620
CUYAH_000029141	CUYAH_000029299	CUYAH_000029621
CUYAH_000029143	CUYAH_000029307	CUYAH_000029623
CUYAH_000029144	CUYAH_000029310	CUYAH_000029625
CUYAH_000029147	CUYAH_000029311	CUYAH_000029627

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000029628	CUYAH_000029817	CUYAH_000029990
CUYAH_000029629	CUYAH_000029824	CUYAH_000029991
CUYAH_000029631	CUYAH_000029829	CUYAH_000029992
CUYAH_000029647	CUYAH_000029834	CUYAH_000029994
CUYAH_000029662	CUYAH_000029845	CUYAH_000030002
CUYAH_000029667	CUYAH_000029849	CUYAH_000030005
CUYAH_000029673	CUYAH_000029850	CUYAH_000030006
CUYAH_000029675	CUYAH_000029852	CUYAH_000030007
CUYAH_000029676	CUYAH_000029855	CUYAH_000030008
CUYAH_000029690	CUYAH_000029857	CUYAH_000030009
CUYAH_000029691	CUYAH_000029863	CUYAH_000030010
CUYAH_000029699	CUYAH_000029865	CUYAH_000030011
CUYAH_000029701	CUYAH_000029866	CUYAH_000030017
CUYAH_000029703	CUYAH_000029867	CUYAH_000030018
CUYAH_000029704	CUYAH_000029872	CUYAH_000030020
CUYAH_000029707	CUYAH_000029875	CUYAH_000030021
CUYAH_000029709	CUYAH_000029876	CUYAH_000030029
CUYAH_000029710	CUYAH_000029877	CUYAH_000030033
CUYAH_000029713	CUYAH_000029878	CUYAH_000030043
CUYAH_000029715	CUYAH_000029879	CUYAH_000030044
CUYAH_000029718	CUYAH_000029880	CUYAH_000030053
CUYAH_000029725	CUYAH_000029881	CUYAH_000030054
CUYAH_000029726	CUYAH_000029883	CUYAH_000030055
CUYAH_000029727	CUYAH_000029884	CUYAH_000030056
CUYAH_000029733	CUYAH_000029885	CUYAH_000030057
CUYAH_000029734	CUYAH_000029887	CUYAH_000030058
CUYAH_000029735	CUYAH_000029892	CUYAH_000030062
CUYAH_000029738	CUYAH_000029893	CUYAH_000030066
CUYAH_000029739	CUYAH_000029895	CUYAH_000030067
CUYAH_000029740	CUYAH_000029897	CUYAH_000030068
CUYAH_000029747	CUYAH_000029922	CUYAH_000030070
CUYAH_000029750	CUYAH_000029923	CUYAH_000030072
CUYAH_000029751	CUYAH_000029925	CUYAH_000030078
CUYAH_000029756	CUYAH_000029929	CUYAH_000030086
CUYAH_000029763	CUYAH_000029933	CUYAH_000030091
CUYAH_000029765	CUYAH_000029946	CUYAH_000030093
CUYAH_000029767	CUYAH_000029953	CUYAH_000030095
CUYAH_000029768	CUYAH_000029955	CUYAH_000030101
CUYAH_000029769	CUYAH_000029956	CUYAH_000030108
CUYAH_000029771	CUYAH_000029958	CUYAH_000030109
CUYAH_000029772	CUYAH_000029959	CUYAH_000030113
CUYAH_000029773	CUYAH_000029960	CUYAH_000030123
CUYAH_000029774	CUYAH_000029968	CUYAH_000030130
CUYAH_000029777	CUYAH_000029970	CUYAH_000030131
CUYAH_000029783	CUYAH_000029978	CUYAH_000030142
CUYAH_000029784	CUYAH_000029979	CUYAH_000030149
CUYAH_000029787	CUYAH_000029983	CUYAH_000030150
CUYAH_000029791	CUYAH_000029984	CUYAH_000030151
CUYAH_000029795	CUYAH_000029985	CUYAH_000030160
CUYAH_000029802	CUYAH_000029986	CUYAH_000030169
CUYAH_000029803	CUYAH_000029988	CUYAH_000030174
CUYAH_000029809	CUYAH_000029989	CUYAH_000030176

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000030177	CUYAH_000030414	CUYAH_000030614
CUYAH_000030178	CUYAH_000030415	CUYAH_000030616
CUYAH_000030187	CUYAH_000030416	CUYAH_000030625
CUYAH_000030193	CUYAH_000030422	CUYAH_000030627
CUYAH_000030199	CUYAH_000030423	CUYAH_000030628
CUYAH_000030201	CUYAH_000030424	CUYAH_000030630
CUYAH_000030209	CUYAH_000030426	CUYAH_000030632
CUYAH_000030214	CUYAH_000030440	CUYAH_000030633
CUYAH_000030219	CUYAH_000030441	CUYAH_000030638
CUYAH_000030221	CUYAH_000030444	CUYAH_000030639
CUYAH_000030224	CUYAH_000030462	CUYAH_000030641
CUYAH_000030239	CUYAH_000030463	CUYAH_000030643
CUYAH_000030249	CUYAH_000030469	CUYAH_000030645
CUYAH_000030251	CUYAH_000030470	CUYAH_000030647
CUYAH_000030254	CUYAH_000030478	CUYAH_000030649
CUYAH_000030255	CUYAH_000030479	CUYAH_000030651
CUYAH_000030256	CUYAH_000030488	CUYAH_000030658
CUYAH_000030258	CUYAH_000030489	CUYAH_000030659
CUYAH_000030259	CUYAH_000030493	CUYAH_000030664
CUYAH_000030261	CUYAH_000030494	CUYAH_000030665
CUYAH_000030263	CUYAH_000030495	CUYAH_000030667
CUYAH_000030264	CUYAH_000030496	CUYAH_000030668
CUYAH_000030265	CUYAH_000030497	CUYAH_000030674
CUYAH_000030270	CUYAH_000030498	CUYAH_000030675
CUYAH_000030271	CUYAH_000030500	CUYAH_000030682
CUYAH_000030278	CUYAH_000030501	CUYAH_000030683
CUYAH_000030283	CUYAH_000030502	CUYAH_000030684
CUYAH_000030286	CUYAH_000030504	CUYAH_000030695
CUYAH_000030287	CUYAH_000030507	CUYAH_000030703
CUYAH_000030293	CUYAH_000030519	CUYAH_000030712
CUYAH_000030294	CUYAH_000030520	CUYAH_000030713
CUYAH_000030303	CUYAH_000030521	CUYAH_000030714
CUYAH_000030312	CUYAH_000030522	CUYAH_000030718
CUYAH_000030313	CUYAH_000030523	CUYAH_000030719
CUYAH_000030315	CUYAH_000030533	CUYAH_000030732
CUYAH_000030318	CUYAH_000030539	CUYAH_000030733
CUYAH_000030319	CUYAH_000030540	CUYAH_000030734
CUYAH_000030321	CUYAH_000030559	CUYAH_000030741
CUYAH_000030328	CUYAH_000030565	CUYAH_000030742
CUYAH_000030329	CUYAH_000030567	CUYAH_000030743
CUYAH_000030334	CUYAH_000030570	CUYAH_000030745
CUYAH_000030337	CUYAH_000030576	CUYAH_000030746
CUYAH_000030347	CUYAH_000030577	CUYAH_000030747
CUYAH_000030357	CUYAH_000030579	CUYAH_000030752
CUYAH_000030359	CUYAH_000030580	CUYAH_000030753
CUYAH_000030361	CUYAH_000030581	CUYAH_000030755
CUYAH_000030367	CUYAH_000030582	CUYAH_000030757
CUYAH_000030372	CUYAH_000030584	CUYAH_000030758
CUYAH_000030388	CUYAH_000030585	CUYAH_000030759
CUYAH_000030390	CUYAH_000030587	CUYAH_000030760
CUYAH_000030392	CUYAH_000030608	CUYAH_000030761
CUYAH_000030409	CUYAH_000030609	CUYAH_000030764

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000030765	CUYAH_000031050	CUYAH_000031231
CUYAH_000030769	CUYAH_000031053	CUYAH_000031253
CUYAH_000030770	CUYAH_000031061	CUYAH_000031265
CUYAH_000030780	CUYAH_000031062	CUYAH_000031267
CUYAH_000030787	CUYAH_000031065	CUYAH_000031274
CUYAH_000030820	CUYAH_000031066	CUYAH_000031279
CUYAH_000030825	CUYAH_000031067	CUYAH_000031282
CUYAH_000030829	CUYAH_000031068	CUYAH_000031303
CUYAH_000030830	CUYAH_000031069	CUYAH_000031304
CUYAH_000030832	CUYAH_000031075	CUYAH_000031305
CUYAH_000030833	CUYAH_000031077	CUYAH_000031308
CUYAH_000030840	CUYAH_000031078	CUYAH_000031312
CUYAH_000030843	CUYAH_000031080	CUYAH_000031313
CUYAH_000030849	CUYAH_000031092	CUYAH_000031323
CUYAH_000030856	CUYAH_000031094	CUYAH_000031325
CUYAH_000030865	CUYAH_000031096	CUYAH_000031331
CUYAH_000030871	CUYAH_000031100	CUYAH_000031332
CUYAH_000030872	CUYAH_000031106	CUYAH_000031333
CUYAH_000030875	CUYAH_000031108	CUYAH_000031337
CUYAH_000030877	CUYAH_000031109	CUYAH_000031349
CUYAH_000030878	CUYAH_000031117	CUYAH_000031361
CUYAH_000030880	CUYAH_000031119	CUYAH_000031366
CUYAH_000030958	CUYAH_000031123	CUYAH_000031371
CUYAH_000030962	CUYAH_000031125	CUYAH_000031374
CUYAH_000030963	CUYAH_000031128	CUYAH_000031383
CUYAH_000030964	CUYAH_000031129	CUYAH_000031395
CUYAH_000030966	CUYAH_000031130	CUYAH_000031402
CUYAH_000030967	CUYAH_000031136	CUYAH_000031424
CUYAH_000030974	CUYAH_000031137	CUYAH_000031441
CUYAH_000030977	CUYAH_000031138	CUYAH_000031453
CUYAH_000030982	CUYAH_000031139	CUYAH_000031460
CUYAH_000030984	CUYAH_000031147	CUYAH_000031461
CUYAH_000030985	CUYAH_000031148	CUYAH_000031466
CUYAH_000030986	CUYAH_000031149	CUYAH_000031468
CUYAH_000030987	CUYAH_000031150	CUYAH_000031471
CUYAH_000030988	CUYAH_000031151	CUYAH_000031472
CUYAH_000030989	CUYAH_000031152	CUYAH_000031490
CUYAH_000030990	CUYAH_000031161	CUYAH_000031491
CUYAH_000030994	CUYAH_000031162	CUYAH_000031503
CUYAH_000030996	CUYAH_000031170	CUYAH_000031505
CUYAH_000030997	CUYAH_000031179	CUYAH_000031510
CUYAH_000030998	CUYAH_000031182	CUYAH_000031514
CUYAH_000030999	CUYAH_000031188	CUYAH_000031515
CUYAH_000031011	CUYAH_000031190	CUYAH_000031521
CUYAH_000031013	CUYAH_000031199	CUYAH_000031522
CUYAH_000031014	CUYAH_000031200	CUYAH_000031527
CUYAH_000031026	CUYAH_000031203	CUYAH_000031536
CUYAH_000031027	CUYAH_000031209	CUYAH_000031538
CUYAH_000031041	CUYAH_000031216	CUYAH_000031539
CUYAH_000031043	CUYAH_000031223	CUYAH_000031541
CUYAH_000031044	CUYAH_000031228	CUYAH_000031542
CUYAH_000031046	CUYAH_000031229	CUYAH_000031543

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000031544	CUYAH_000031747	CUYAH_000031976
CUYAH_000031545	CUYAH_000031766	CUYAH_000031977
CUYAH_000031546	CUYAH_000031771	CUYAH_000031979
CUYAH_000031549	CUYAH_000031773	CUYAH_000031996
CUYAH_000031550	CUYAH_000031782	CUYAH_000031998
CUYAH_000031551	CUYAH_000031784	CUYAH_000032008
CUYAH_000031555	CUYAH_000031785	CUYAH_000032013
CUYAH_000031562	CUYAH_000031793	CUYAH_000032014
CUYAH_000031569	CUYAH_000031809	CUYAH_000032025
CUYAH_000031570	CUYAH_000031814	CUYAH_000032030
CUYAH_000031572	CUYAH_000031815	CUYAH_000032032
CUYAH_000031573	CUYAH_000031818	CUYAH_000032034
CUYAH_000031574	CUYAH_000031819	CUYAH_000032035
CUYAH_000031575	CUYAH_000031820	CUYAH_000032045
CUYAH_000031576	CUYAH_000031821	CUYAH_000032047
CUYAH_000031584	CUYAH_000031822	CUYAH_000032065
CUYAH_000031585	CUYAH_000031824	CUYAH_000032066
CUYAH_000031586	CUYAH_000031826	CUYAH_000032067
CUYAH_000031587	CUYAH_000031834	CUYAH_000032068
CUYAH_000031588	CUYAH_000031835	CUYAH_000032069
CUYAH_000031602	CUYAH_000031837	CUYAH_000032071
CUYAH_000031607	CUYAH_000031851	CUYAH_000032076
CUYAH_000031609	CUYAH_000031867	CUYAH_000032081
CUYAH_000031612	CUYAH_000031868	CUYAH_000032082
CUYAH_000031613	CUYAH_000031869	CUYAH_000032083
CUYAH_000031623	CUYAH_000031870	CUYAH_000032084
CUYAH_000031625	CUYAH_000031878	CUYAH_000032098
CUYAH_000031627	CUYAH_000031879	CUYAH_000032100
CUYAH_000031641	CUYAH_000031881	CUYAH_000032101
CUYAH_000031647	CUYAH_000031888	CUYAH_000032102
CUYAH_000031648	CUYAH_000031889	CUYAH_000032109
CUYAH_000031658	CUYAH_000031892	CUYAH_000032118
CUYAH_000031665	CUYAH_000031893	CUYAH_000032119
CUYAH_000031669	CUYAH_000031894	CUYAH_000032120
CUYAH_000031670	CUYAH_000031896	CUYAH_000032123
CUYAH_000031680	CUYAH_000031898	CUYAH_000032124
CUYAH_000031681	CUYAH_000031899	CUYAH_000032125
CUYAH_000031686	CUYAH_000031900	CUYAH_000032128
CUYAH_000031687	CUYAH_000031907	CUYAH_000032129
CUYAH_000031688	CUYAH_000031915	CUYAH_000032131
CUYAH_000031689	CUYAH_000031924	CUYAH_000032171
CUYAH_000031698	CUYAH_000031930	CUYAH_000032172
CUYAH_000031700	CUYAH_000031940	CUYAH_000032173
CUYAH_000031701	CUYAH_000031945	CUYAH_000032174
CUYAH_000031702	CUYAH_000031947	CUYAH_000032175
CUYAH_000031710	CUYAH_000031954	CUYAH_000032177
CUYAH_000031711	CUYAH_000031962	CUYAH_000032179
CUYAH_000031717	CUYAH_000031963	CUYAH_000032181
CUYAH_000031718	CUYAH_000031970	CUYAH_000032191
CUYAH_000031727	CUYAH_000031972	CUYAH_000032194
CUYAH_000031728	CUYAH_000031973	CUYAH_000032195
CUYAH_000031733	CUYAH_000031975	CUYAH_000032198

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000032200	CUYAH_000032388	CUYAH_000032587
CUYAH_000032204	CUYAH_000032406	CUYAH_000032588
CUYAH_000032206	CUYAH_000032407	CUYAH_000032589
CUYAH_000032209	CUYAH_000032414	CUYAH_000032590
CUYAH_000032210	CUYAH_000032416	CUYAH_000032591
CUYAH_000032217	CUYAH_000032418	CUYAH_000032592
CUYAH_000032219	CUYAH_000032419	CUYAH_000032594
CUYAH_000032221	CUYAH_000032420	CUYAH_000032595
CUYAH_000032233	CUYAH_000032422	CUYAH_000032596
CUYAH_000032235	CUYAH_000032424	CUYAH_000032597
CUYAH_000032238	CUYAH_000032433	CUYAH_000032598
CUYAH_000032243	CUYAH_000032435	CUYAH_000032605
CUYAH_000032245	CUYAH_000032437	CUYAH_000032607
CUYAH_000032246	CUYAH_000032447	CUYAH_000032610
CUYAH_000032251	CUYAH_000032457	CUYAH_000032612
CUYAH_000032257	CUYAH_000032458	CUYAH_000032613
CUYAH_000032261	CUYAH_000032459	CUYAH_000032614
CUYAH_000032267	CUYAH_000032460	CUYAH_000032625
CUYAH_000032270	CUYAH_000032461	CUYAH_000032626
CUYAH_000032271	CUYAH_000032465	CUYAH_000032627
CUYAH_000032272	CUYAH_000032467	CUYAH_000032629
CUYAH_000032276	CUYAH_000032476	CUYAH_000032635
CUYAH_000032278	CUYAH_000032498	CUYAH_000032636
CUYAH_000032281	CUYAH_000032502	CUYAH_000032637
CUYAH_000032290	CUYAH_000032507	CUYAH_000032640
CUYAH_000032291	CUYAH_000032515	CUYAH_000032641
CUYAH_000032292	CUYAH_000032516	CUYAH_000032646
CUYAH_000032295	CUYAH_000032520	CUYAH_000032649
CUYAH_000032297	CUYAH_000032521	CUYAH_000032650
CUYAH_000032298	CUYAH_000032522	CUYAH_000032651
CUYAH_000032301	CUYAH_000032524	CUYAH_000032657
CUYAH_000032302	CUYAH_000032526	CUYAH_000032658
CUYAH_000032304	CUYAH_000032527	CUYAH_000032661
CUYAH_000032314	CUYAH_000032528	CUYAH_000032666
CUYAH_000032325	CUYAH_000032545	CUYAH_000032669
CUYAH_000032343	CUYAH_000032546	CUYAH_000032672
CUYAH_000032344	CUYAH_000032548	CUYAH_000032673
CUYAH_000032345	CUYAH_000032549	CUYAH_000032679
CUYAH_000032348	CUYAH_000032550	CUYAH_000032684
CUYAH_000032350	CUYAH_000032551	CUYAH_000032685
CUYAH_000032352	CUYAH_000032552	CUYAH_000032700
CUYAH_000032353	CUYAH_000032565	CUYAH_000032701
CUYAH_000032354	CUYAH_000032566	CUYAH_000032702
CUYAH_000032356	CUYAH_000032567	CUYAH_000032705
CUYAH_000032359	CUYAH_000032570	CUYAH_000032706
CUYAH_000032367	CUYAH_000032573	CUYAH_000032720
CUYAH_000032368	CUYAH_000032574	CUYAH_000032721
CUYAH_000032370	CUYAH_000032575	CUYAH_000032722
CUYAH_000032373	CUYAH_000032576	CUYAH_000032726
CUYAH_000032374	CUYAH_000032578	CUYAH_000032727
CUYAH_000032380	CUYAH_000032585	CUYAH_000032728
CUYAH_000032384	CUYAH_000032586	CUYAH_000032732

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000032733	CUYAH_000032863	CUYAH_000032999
CUYAH_000032736	CUYAH_000032864	CUYAH_000033007
CUYAH_000032737	CUYAH_000032867	CUYAH_000033012
CUYAH_000032740	CUYAH_000032872	CUYAH_000033013
CUYAH_000032741	CUYAH_000032875	CUYAH_000033017
CUYAH_000032742	CUYAH_000032876	CUYAH_000033022
CUYAH_000032744	CUYAH_000032879	CUYAH_000033023
CUYAH_000032747	CUYAH_000032884	CUYAH_000033027
CUYAH_000032748	CUYAH_000032885	CUYAH_000033028
CUYAH_000032749	CUYAH_000032886	CUYAH_000033030
CUYAH_000032750	CUYAH_000032894	CUYAH_000033031
CUYAH_000032751	CUYAH_000032897	CUYAH_000033032
CUYAH_000032755	CUYAH_000032900	CUYAH_000033035
CUYAH_000032759	CUYAH_000032901	CUYAH_000033039
CUYAH_000032762	CUYAH_000032902	CUYAH_000033043
CUYAH_000032770	CUYAH_000032905	CUYAH_000033044
CUYAH_000032771	CUYAH_000032908	CUYAH_000033047
CUYAH_000032772	CUYAH_000032914	CUYAH_000033048
CUYAH_000032773	CUYAH_000032915	CUYAH_000033051
CUYAH_000032778	CUYAH_000032921	CUYAH_000033052
CUYAH_000032780	CUYAH_000032922	CUYAH_000033053
CUYAH_000032783	CUYAH_000032923	CUYAH_000033054
CUYAH_000032786	CUYAH_000032925	CUYAH_000033055
CUYAH_000032788	CUYAH_000032931	CUYAH_000033056
CUYAH_000032792	CUYAH_000032939	CUYAH_000033060
CUYAH_000032796	CUYAH_000032942	CUYAH_000033064
CUYAH_000032802	CUYAH_000032943	CUYAH_000033065
CUYAH_000032803	CUYAH_000032944	CUYAH_000033073
CUYAH_000032804	CUYAH_000032945	CUYAH_000033080
CUYAH_000032805	CUYAH_000032948	CUYAH_000033083
CUYAH_000032806	CUYAH_000032949	CUYAH_000033084
CUYAH_000032807	CUYAH_000032950	CUYAH_000033085
CUYAH_000032808	CUYAH_000032951	CUYAH_000033088
CUYAH_000032809	CUYAH_000032952	CUYAH_000033089
CUYAH_000032810	CUYAH_000032953	CUYAH_000033090
CUYAH_000032820	CUYAH_000032954	CUYAH_000033091
CUYAH_000032821	CUYAH_000032955	CUYAH_000033092
CUYAH_000032826	CUYAH_000032960	CUYAH_000033093
CUYAH_000032827	CUYAH_000032962	CUYAH_000033096
CUYAH_000032828	CUYAH_000032970	CUYAH_000033097
CUYAH_000032831	CUYAH_000032973	CUYAH_000033099
CUYAH_000032832	CUYAH_000032977	CUYAH_000033100
CUYAH_000032833	CUYAH_000032978	CUYAH_000033101
CUYAH_000032834	CUYAH_000032981	CUYAH_000033107
CUYAH_000032838	CUYAH_000032982	CUYAH_000033108
CUYAH_000032843	CUYAH_000032985	CUYAH_000033115
CUYAH_000032850	CUYAH_000032986	CUYAH_000033116
CUYAH_000032851	CUYAH_000032988	CUYAH_000033117
CUYAH_000032854	CUYAH_000032989	CUYAH_000033118
CUYAH_000032858	CUYAH_000032990	CUYAH_000033119
CUYAH_000032859	CUYAH_000032991	CUYAH_000033120
CUYAH_000032862	CUYAH_000032994	CUYAH_000033144

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000033145	CUYAH_000033312	CUYAH_000033419
CUYAH_000033146	CUYAH_000033313	CUYAH_000033420
CUYAH_000033149	CUYAH_000033314	CUYAH_000033421
CUYAH_000033150	CUYAH_000033315	CUYAH_000033422
CUYAH_000033156	CUYAH_000033316	CUYAH_000033572
CUYAH_000033157	CUYAH_000033319	CUYAH_000033573
CUYAH_000033158	CUYAH_000033320	CUYAH_000033577
CUYAH_000033159	CUYAH_000033321	CUYAH_000033580
CUYAH_000033166	CUYAH_000033322	CUYAH_000033581
CUYAH_000033169	CUYAH_000033325	CUYAH_000033582
CUYAH_000033172	CUYAH_000033328	CUYAH_000033583
CUYAH_000033177	CUYAH_000033329	CUYAH_000033589
CUYAH_000033182	CUYAH_000033330	CUYAH_000033596
CUYAH_000033183	CUYAH_000033335	CUYAH_000033597
CUYAH_000033186	CUYAH_000033338	CUYAH_000033600
CUYAH_000033187	CUYAH_000033339	CUYAH_000033601
CUYAH_000033188	CUYAH_000033340	CUYAH_000033602
CUYAH_000033191	CUYAH_000033341	CUYAH_000033611
CUYAH_000033194	CUYAH_000033342	CUYAH_000033614
CUYAH_000033197	CUYAH_000033344	CUYAH_000033616
CUYAH_000033202	CUYAH_000033345	CUYAH_000033621
CUYAH_000033203	CUYAH_000033346	CUYAH_000033622
CUYAH_000033206	CUYAH_000033351	CUYAH_000033626
CUYAH_000033213	CUYAH_000033353	CUYAH_000033627
CUYAH_000033218	CUYAH_000033360	CUYAH_000033628
CUYAH_000033219	CUYAH_000033361	CUYAH_000033629
CUYAH_000033225	CUYAH_000033362	CUYAH_000033630
CUYAH_000033228	CUYAH_000033363	CUYAH_000033631
CUYAH_000033229	CUYAH_000033364	CUYAH_000033632
CUYAH_000033230	CUYAH_000033365	CUYAH_000033633
CUYAH_000033233	CUYAH_000033366	CUYAH_000033634
CUYAH_000033234	CUYAH_000033370	CUYAH_000033640
CUYAH_000033237	CUYAH_000033375	CUYAH_000033643
CUYAH_000033243	CUYAH_000033380	CUYAH_000033646
CUYAH_000033244	CUYAH_000033381	CUYAH_000033647
CUYAH_000033247	CUYAH_000033385	CUYAH_000033648
CUYAH_000033253	CUYAH_000033386	CUYAH_000033653
CUYAH_000033279	CUYAH_000033401	CUYAH_000033660
CUYAH_000033280	CUYAH_000033402	CUYAH_000033664
CUYAH_000033281	CUYAH_000033403	CUYAH_000033665
CUYAH_000033285	CUYAH_000033404	CUYAH_000033668
CUYAH_000033286	CUYAH_000033405	CUYAH_000033669
CUYAH_000033289	CUYAH_000033406	CUYAH_000033672
CUYAH_000033297	CUYAH_000033407	CUYAH_000033673
CUYAH_000033298	CUYAH_000033408	CUYAH_000033674
CUYAH_000033299	CUYAH_000033409	CUYAH_000033677
CUYAH_000033300	CUYAH_000033410	CUYAH_000033678
CUYAH_000033303	CUYAH_000033411	CUYAH_000033692
CUYAH_000033304	CUYAH_000033412	CUYAH_000033695
CUYAH_000033305	CUYAH_000033414	CUYAH_000033701
CUYAH_000033308	CUYAH_000033417	CUYAH_000033702
CUYAH_000033311	CUYAH_000033418	CUYAH_000033703

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000033704	CUYAH_000033824	CUYAH_000034005
CUYAH_000033707	CUYAH_000033826	CUYAH_000034008
CUYAH_000033708	CUYAH_000033827	CUYAH_000034009
CUYAH_000033712	CUYAH_000033833	CUYAH_000034015
CUYAH_000033716	CUYAH_000033834	CUYAH_000034016
CUYAH_000033717	CUYAH_000033835	CUYAH_000034017
CUYAH_000033724	CUYAH_000033836	CUYAH_000034018
CUYAH_000033727	CUYAH_000033840	CUYAH_000034019
CUYAH_000033731	CUYAH_000033841	CUYAH_000034023
CUYAH_000033734	CUYAH_000033842	CUYAH_000034024
CUYAH_000033735	CUYAH_000033843	CUYAH_000034025
CUYAH_000033736	CUYAH_000033844	CUYAH_000034026
CUYAH_000033739	CUYAH_000033845	CUYAH_000034029
CUYAH_000033740	CUYAH_000033852	CUYAH_000034033
CUYAH_000033741	CUYAH_000033856	CUYAH_000034038
CUYAH_000033742	CUYAH_000033857	CUYAH_000034041
CUYAH_000033745	CUYAH_000033862	CUYAH_000034042
CUYAH_000033746	CUYAH_000033863	CUYAH_000034043
CUYAH_000033747	CUYAH_000033867	CUYAH_000034046
CUYAH_000033748	CUYAH_000033873	CUYAH_000034049
CUYAH_000033749	CUYAH_000033877	CUYAH_000034050
CUYAH_000033750	CUYAH_000033878	CUYAH_000034051
CUYAH_000033757	CUYAH_000033879	CUYAH_000034058
CUYAH_000033758	CUYAH_000033882	CUYAH_000034062
CUYAH_000033763	CUYAH_000033883	CUYAH_000034063
CUYAH_000033766	CUYAH_000033933	CUYAH_000034064
CUYAH_000033767	CUYAH_000033934	CUYAH_000034067
CUYAH_000033768	CUYAH_000033937	CUYAH_000034072
CUYAH_000033774	CUYAH_000033938	CUYAH_000034073
CUYAH_000033775	CUYAH_000033942	CUYAH_000034074
CUYAH_000033776	CUYAH_000033943	CUYAH_000034075
CUYAH_000033777	CUYAH_000033947	CUYAH_000034076
CUYAH_000033782	CUYAH_000033951	CUYAH_000034077
CUYAH_000033783	CUYAH_000033955	CUYAH_000034078
CUYAH_000033788	CUYAH_000033962	CUYAH_000034079
CUYAH_000033789	CUYAH_000033963	CUYAH_000034082
CUYAH_000033792	CUYAH_000033964	CUYAH_000034083
CUYAH_000033793	CUYAH_000033965	CUYAH_000034088
CUYAH_000033794	CUYAH_000033971	CUYAH_000034089
CUYAH_000033795	CUYAH_000033972	CUYAH_000034090
CUYAH_000033796	CUYAH_000033973	CUYAH_000034093
CUYAH_000033797	CUYAH_000033974	CUYAH_000034094
CUYAH_000033798	CUYAH_000033975	CUYAH_000034095
CUYAH_000033804	CUYAH_000033976	CUYAH_000034096
CUYAH_000033805	CUYAH_000033977	CUYAH_000034098
CUYAH_000033806	CUYAH_000033985	CUYAH_000034099
CUYAH_000033807	CUYAH_000033988	CUYAH_000034104
CUYAH_000033810	CUYAH_000033993	CUYAH_000034109
CUYAH_000033811	CUYAH_000033999	CUYAH_000034113
CUYAH_000033815	CUYAH_000034000	CUYAH_000034116
CUYAH_000033817	CUYAH_000034001	CUYAH_000034117
CUYAH_000033818	CUYAH_000034002	CUYAH_000034118

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000034119	CUYAH_000034250	CUYAH_000034384
CUYAH_000034123	CUYAH_000034251	CUYAH_000034385
CUYAH_000034127	CUYAH_000034252	CUYAH_000034386
CUYAH_000034128	CUYAH_000034253	CUYAH_000034387
CUYAH_000034130	CUYAH_000034254	CUYAH_000034388
CUYAH_000034136	CUYAH_000034259	CUYAH_000034389
CUYAH_000034137	CUYAH_000034264	CUYAH_000034392
CUYAH_000034139	CUYAH_000034268	CUYAH_000034393
CUYAH_000034143	CUYAH_000034269	CUYAH_000034396
CUYAH_000034144	CUYAH_000034270	CUYAH_000034397
CUYAH_000034148	CUYAH_000034271	CUYAH_000034398
CUYAH_000034149	CUYAH_000034272	CUYAH_000034399
CUYAH_000034152	CUYAH_000034278	CUYAH_000034403
CUYAH_000034154	CUYAH_000034279	CUYAH_000034408
CUYAH_000034155	CUYAH_000034280	CUYAH_000034409
CUYAH_000034156	CUYAH_000034281	CUYAH_000034410
CUYAH_000034157	CUYAH_000034282	CUYAH_000034412
CUYAH_000034160	CUYAH_000034283	CUYAH_000034413
CUYAH_000034164	CUYAH_000034286	CUYAH_000034414
CUYAH_000034165	CUYAH_000034287	CUYAH_000034415
CUYAH_000034166	CUYAH_000034288	CUYAH_000034416
CUYAH_000034167	CUYAH_000034294	CUYAH_000034417
CUYAH_000034171	CUYAH_000034295	CUYAH_000034418
CUYAH_000034172	CUYAH_000034298	CUYAH_000034419
CUYAH_000034173	CUYAH_000034306	CUYAH_000034420
CUYAH_000034174	CUYAH_000034307	CUYAH_000034423
CUYAH_000034175	CUYAH_000034311	CUYAH_000034425
CUYAH_000034176	CUYAH_000034312	CUYAH_000034426
CUYAH_000034177	CUYAH_000034314	CUYAH_000034427
CUYAH_000034178	CUYAH_000034319	CUYAH_000034428
CUYAH_000034179	CUYAH_000034320	CUYAH_000034429
CUYAH_000034185	CUYAH_000034323	CUYAH_000034430
CUYAH_000034186	CUYAH_000034329	CUYAH_000034436
CUYAH_000034192	CUYAH_000034335	CUYAH_000034437
CUYAH_000034195	CUYAH_000034336	CUYAH_000034440
CUYAH_000034196	CUYAH_000034338	CUYAH_000034441
CUYAH_000034197	CUYAH_000034341	CUYAH_000034444
CUYAH_000034200	CUYAH_000034344	CUYAH_000034447
CUYAH_000034203	CUYAH_000034353	CUYAH_000034448
CUYAH_000034205	CUYAH_000034357	CUYAH_000034461
CUYAH_000034210	CUYAH_000034358	CUYAH_000034465
CUYAH_000034211	CUYAH_000034359	CUYAH_000034468
CUYAH_000034214	CUYAH_000034362	CUYAH_000034471
CUYAH_000034215	CUYAH_000034365	CUYAH_000034475
CUYAH_000034217	CUYAH_000034366	CUYAH_000034476
CUYAH_000034218	CUYAH_000034367	CUYAH_000034479
CUYAH_000034237	CUYAH_000034370	CUYAH_000034480
CUYAH_000034238	CUYAH_000034371	CUYAH_000034481
CUYAH_000034242	CUYAH_000034372	CUYAH_000034482
CUYAH_000034243	CUYAH_000034379	CUYAH_000034485
CUYAH_000034244	CUYAH_000034380	CUYAH_000034486
CUYAH_000034245	CUYAH_000034383	CUYAH_000034489

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000034490	CUYAH_000034611	CUYAH_000034741
CUYAH_000034492	CUYAH_000034612	CUYAH_000034742
CUYAH_000034495	CUYAH_000034615	CUYAH_000034743
CUYAH_000034499	CUYAH_000034618	CUYAH_000034746
CUYAH_000034500	CUYAH_000034623	CUYAH_000034747
CUYAH_000034502	CUYAH_000034624	CUYAH_000034748
CUYAH_000034505	CUYAH_000034625	CUYAH_000034749
CUYAH_000034506	CUYAH_000034629	CUYAH_000034750
CUYAH_000034507	CUYAH_000034631	CUYAH_000034753
CUYAH_000034512	CUYAH_000034632	CUYAH_000034754
CUYAH_000034513	CUYAH_000034634	CUYAH_000034761
CUYAH_000034514	CUYAH_000034640	CUYAH_000034762
CUYAH_000034515	CUYAH_000034641	CUYAH_000034763
CUYAH_000034518	CUYAH_000034642	CUYAH_000034766
CUYAH_000034523	CUYAH_000034648	CUYAH_000034843
CUYAH_000034524	CUYAH_000034652	CUYAH_000034844
CUYAH_000034525	CUYAH_000034653	CUYAH_000034847
CUYAH_000034526	CUYAH_000034657	CUYAH_000034850
CUYAH_000034528	CUYAH_000034658	CUYAH_000034851
CUYAH_000034531	CUYAH_000034659	CUYAH_000034852
CUYAH_000034532	CUYAH_000034662	CUYAH_000034869
CUYAH_000034535	CUYAH_000034665	CUYAH_000034873
CUYAH_000034538	CUYAH_000034666	CUYAH_000034874
CUYAH_000034539	CUYAH_000034667	CUYAH_000034877
CUYAH_000034540	CUYAH_000034673	CUYAH_000034878
CUYAH_000034544	CUYAH_000034674	CUYAH_000034882
CUYAH_000034548	CUYAH_000034677	CUYAH_000034883
CUYAH_000034553	CUYAH_000034678	CUYAH_000034884
CUYAH_000034556	CUYAH_000034684	CUYAH_000034887
CUYAH_000034558	CUYAH_000034686	CUYAH_000034890
CUYAH_000034559	CUYAH_000034687	CUYAH_000034891
CUYAH_000034562	CUYAH_000034689	CUYAH_000034894
CUYAH_000034563	CUYAH_000034692	CUYAH_000034897
CUYAH_000034570	CUYAH_000034700	CUYAH_000034898
CUYAH_000034571	CUYAH_000034701	CUYAH_000034899
CUYAH_000034572	CUYAH_000034704	CUYAH_000034903
CUYAH_000034577	CUYAH_000034705	CUYAH_000034904
CUYAH_000034580	CUYAH_000034708	CUYAH_000034905
CUYAH_000034583	CUYAH_000034710	CUYAH_000034911
CUYAH_000034584	CUYAH_000034711	CUYAH_000034912
CUYAH_000034590	CUYAH_000034712	CUYAH_000034913
CUYAH_000034591	CUYAH_000034716	CUYAH_000034914
CUYAH_000034592	CUYAH_000034717	CUYAH_000034915
CUYAH_000034593	CUYAH_000034720	CUYAH_000034922
CUYAH_000034596	CUYAH_000034721	CUYAH_000034929
CUYAH_000034597	CUYAH_000034722	CUYAH_000034936
CUYAH_000034598	CUYAH_000034723	CUYAH_000034941
CUYAH_000034599	CUYAH_000034726	CUYAH_000034950
CUYAH_000034607	CUYAH_000034731	CUYAH_000034959
CUYAH_000034608	CUYAH_000034734	CUYAH_000034967
CUYAH_000034609	CUYAH_000034735	CUYAH_000034975
CUYAH_000034610	CUYAH_000034738	CUYAH_000034990

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000034991	CUYAH_000035134	CUYAH_000035250
CUYAH_000035002	CUYAH_000035135	CUYAH_000035253
CUYAH_000035007	CUYAH_000035140	CUYAH_000035254
CUYAH_000035013	CUYAH_000035141	CUYAH_000035255
CUYAH_000035014	CUYAH_000035142	CUYAH_000035256
CUYAH_000035015	CUYAH_000035145	CUYAH_000035258
CUYAH_000035016	CUYAH_000035148	CUYAH_000035263
CUYAH_000035024	CUYAH_000035150	CUYAH_000035266
CUYAH_000035025	CUYAH_000035151	CUYAH_000035273
CUYAH_000035026	CUYAH_000035152	CUYAH_000035276
CUYAH_000035029	CUYAH_000035154	CUYAH_000035280
CUYAH_000035030	CUYAH_000035157	CUYAH_000035283
CUYAH_000035035	CUYAH_000035160	CUYAH_000035287
CUYAH_000035036	CUYAH_000035161	CUYAH_000035290
CUYAH_000035037	CUYAH_000035162	CUYAH_000035291
CUYAH_000035038	CUYAH_000035166	CUYAH_000035292
CUYAH_000035045	CUYAH_000035167	CUYAH_000035294
CUYAH_000035046	CUYAH_000035173	CUYAH_000035295
CUYAH_000035050	CUYAH_000035175	CUYAH_000035296
CUYAH_000035053	CUYAH_000035177	CUYAH_000035300
CUYAH_000035056	CUYAH_000035181	CUYAH_000035301
CUYAH_000035057	CUYAH_000035182	CUYAH_000035302
CUYAH_000035058	CUYAH_000035185	CUYAH_000035303
CUYAH_000035059	CUYAH_000035186	CUYAH_000035304
CUYAH_000035060	CUYAH_000035187	CUYAH_000035308
CUYAH_000035061	CUYAH_000035192	CUYAH_000035318
CUYAH_000035062	CUYAH_000035193	CUYAH_000035319
CUYAH_000035063	CUYAH_000035194	CUYAH_000035324
CUYAH_000035064	CUYAH_000035195	CUYAH_000035328
CUYAH_000035065	CUYAH_000035199	CUYAH_000035331
CUYAH_000035066	CUYAH_000035200	CUYAH_000035332
CUYAH_000035069	CUYAH_000035201	CUYAH_000035338
CUYAH_000035079	CUYAH_000035204	CUYAH_000035339
CUYAH_000035080	CUYAH_000035206	CUYAH_000035340
CUYAH_000035083	CUYAH_000035207	CUYAH_000035341
CUYAH_000035084	CUYAH_000035208	CUYAH_000035342
CUYAH_000035088	CUYAH_000035209	CUYAH_000035343
CUYAH_000035094	CUYAH_000035210	CUYAH_000035344
CUYAH_000035095	CUYAH_000035211	CUYAH_000035348
CUYAH_000035096	CUYAH_000035212	CUYAH_000035452
CUYAH_000035097	CUYAH_000035213	CUYAH_000035455
CUYAH_000035098	CUYAH_000035214	CUYAH_000035462
CUYAH_000035100	CUYAH_000035218	CUYAH_000035477
CUYAH_000035101	CUYAH_000035220	CUYAH_000035478
CUYAH_000035105	CUYAH_000035223	CUYAH_000035479
CUYAH_000035109	CUYAH_000035227	CUYAH_000035480
CUYAH_000035113	CUYAH_000035228	CUYAH_000035481
CUYAH_000035114	CUYAH_000035231	CUYAH_000035484
CUYAH_000035116	CUYAH_000035238	CUYAH_000035487
CUYAH_000035126	CUYAH_000035243	CUYAH_000035488
CUYAH_000035128	CUYAH_000035248	CUYAH_000035492
CUYAH_000035133	CUYAH_000035249	CUYAH_000035493

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000035494	CUYAH_000035656	CUYAH_000035779
CUYAH_000035499	CUYAH_000035657	CUYAH_000035780
CUYAH_000035500	CUYAH_000035660	CUYAH_000035784
CUYAH_000035501	CUYAH_000035661	CUYAH_000035785
CUYAH_000035502	CUYAH_000035664	CUYAH_000035786
CUYAH_000035505	CUYAH_000035668	CUYAH_000035787
CUYAH_000035506	CUYAH_000035669	CUYAH_000035792
CUYAH_000035507	CUYAH_000035670	CUYAH_000035794
CUYAH_000035511	CUYAH_000035671	CUYAH_000035795
CUYAH_000035516	CUYAH_000035672	CUYAH_000035799
CUYAH_000035517	CUYAH_000035673	CUYAH_000035803
CUYAH_000035518	CUYAH_000035674	CUYAH_000035804
CUYAH_000035522	CUYAH_000035675	CUYAH_000035805
CUYAH_000035523	CUYAH_000035680	CUYAH_000035806
CUYAH_000035528	CUYAH_000035684	CUYAH_000035811
CUYAH_000035532	CUYAH_000035688	CUYAH_000035812
CUYAH_000035536	CUYAH_000035694	CUYAH_000035813
CUYAH_000035540	CUYAH_000035699	CUYAH_000035816
CUYAH_000035541	CUYAH_000035703	CUYAH_000035817
CUYAH_000035543	CUYAH_000035704	CUYAH_000035819
CUYAH_000035547	CUYAH_000035705	CUYAH_000035820
CUYAH_000035548	CUYAH_000035707	CUYAH_000035823
CUYAH_000035549	CUYAH_000035708	CUYAH_000035824
CUYAH_000035553	CUYAH_000035712	CUYAH_000035827
CUYAH_000035556	CUYAH_000035715	CUYAH_000035833
CUYAH_000035566	CUYAH_000035716	CUYAH_000035842
CUYAH_000035569	CUYAH_000035719	CUYAH_000035846
CUYAH_000035572	CUYAH_000035723	CUYAH_000035849
CUYAH_000035573	CUYAH_000035726	CUYAH_000035858
CUYAH_000035577	CUYAH_000035727	CUYAH_000035862
CUYAH_000035583	CUYAH_000035728	CUYAH_000035863
CUYAH_000035591	CUYAH_000035729	CUYAH_000035864
CUYAH_000035594	CUYAH_000035730	CUYAH_000035865
CUYAH_000035595	CUYAH_000035733	CUYAH_000035866
CUYAH_000035596	CUYAH_000035734	CUYAH_000035867
CUYAH_000035597	CUYAH_000035735	CUYAH_000035871
CUYAH_000035598	CUYAH_000035736	CUYAH_000035872
CUYAH_000035599	CUYAH_000035737	CUYAH_000035876
CUYAH_000035601	CUYAH_000035743	CUYAH_000035879
CUYAH_000035602	CUYAH_000035744	CUYAH_000035892
CUYAH_000035609	CUYAH_000035748	CUYAH_000035894
CUYAH_000035610	CUYAH_000035749	CUYAH_000035895
CUYAH_000035612	CUYAH_000035750	CUYAH_000035898
CUYAH_000035619	CUYAH_000035753	CUYAH_000035901
CUYAH_000035623	CUYAH_000035754	CUYAH_000035902
CUYAH_000035625	CUYAH_000035762	CUYAH_000035908
CUYAH_000035626	CUYAH_000035763	CUYAH_000035909
CUYAH_000035627	CUYAH_000035767	CUYAH_000035910
CUYAH_000035630	CUYAH_000035770	CUYAH_000035911
CUYAH_000035633	CUYAH_000035771	CUYAH_000035912
CUYAH_000035634	CUYAH_000035772	CUYAH_000035913
CUYAH_000035639	CUYAH_000035773	CUYAH_000035914

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000035917	CUYAH_000036044	CUYAH_000036151
CUYAH_000035918	CUYAH_000036047	CUYAH_000036153
CUYAH_000035923	CUYAH_000036051	CUYAH_000036156
CUYAH_000035924	CUYAH_000036053	CUYAH_000036157
CUYAH_000035926	CUYAH_000036057	CUYAH_000036158
CUYAH_000035929	CUYAH_000036060	CUYAH_000036162
CUYAH_000035932	CUYAH_000036062	CUYAH_000036165
CUYAH_000035935	CUYAH_000036063	CUYAH_000036169
CUYAH_000035939	CUYAH_000036064	CUYAH_000036174
CUYAH_000035949	CUYAH_000036065	CUYAH_000036175
CUYAH_000035952	CUYAH_000036066	CUYAH_000036176
CUYAH_000035953	CUYAH_000036071	CUYAH_000036177
CUYAH_000035954	CUYAH_000036072	CUYAH_000036178
CUYAH_000035955	CUYAH_000036073	CUYAH_000036179
CUYAH_000035956	CUYAH_000036080	CUYAH_000036180
CUYAH_000035958	CUYAH_000036081	CUYAH_000036181
CUYAH_000035963	CUYAH_000036082	CUYAH_000036182
CUYAH_000035967	CUYAH_000036083	CUYAH_000036185
CUYAH_000035970	CUYAH_000036084	CUYAH_000036186
CUYAH_000035971	CUYAH_000036085	CUYAH_000036189
CUYAH_000035972	CUYAH_000036092	CUYAH_000036190
CUYAH_000035980	CUYAH_000036093	CUYAH_000036195
CUYAH_000035981	CUYAH_000036094	CUYAH_000036196
CUYAH_000035982	CUYAH_000036095	CUYAH_000036199
CUYAH_000035985	CUYAH_000036096	CUYAH_000036200
CUYAH_000035988	CUYAH_000036099	CUYAH_000036204
CUYAH_000035992	CUYAH_000036100	CUYAH_000036207
CUYAH_000035996	CUYAH_000036101	CUYAH_000036211
CUYAH_000035999	CUYAH_000036102	CUYAH_000036214
CUYAH_000036000	CUYAH_000036103	CUYAH_000036219
CUYAH_000036001	CUYAH_000036105	CUYAH_000036223
CUYAH_000036006	CUYAH_000036106	CUYAH_000036224
CUYAH_000036007	CUYAH_000036107	CUYAH_000036225
CUYAH_000036008	CUYAH_000036108	CUYAH_000036226
CUYAH_000036015	CUYAH_000036112	CUYAH_000036227
CUYAH_000036018	CUYAH_000036114	CUYAH_000036228
CUYAH_000036019	CUYAH_000036115	CUYAH_000036231
CUYAH_000036020	CUYAH_000036118	CUYAH_000036234
CUYAH_000036021	CUYAH_000036122	CUYAH_000036235
CUYAH_000036022	CUYAH_000036123	CUYAH_000036238
CUYAH_000036023	CUYAH_000036128	CUYAH_000036239
CUYAH_000036024	CUYAH_000036131	CUYAH_000036242
CUYAH_000036025	CUYAH_000036132	CUYAH_000036243
CUYAH_000036035	CUYAH_000036135	CUYAH_000036247
CUYAH_000036036	CUYAH_000036136	CUYAH_000036248
CUYAH_000036037	CUYAH_000036137	CUYAH_000036252
CUYAH_000036038	CUYAH_000036138	CUYAH_000036253
CUYAH_000036039	CUYAH_000036139	CUYAH_000036255
CUYAH_000036040	CUYAH_000036140	CUYAH_000036257
CUYAH_000036041	CUYAH_000036141	CUYAH_000036258
CUYAH_000036042	CUYAH_000036142	CUYAH_000036262
CUYAH_000036043	CUYAH_000036147	CUYAH_000036263

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000036266	CUYAH_000036418	CUYAH_000036742
CUYAH_000036267	CUYAH_000036480	CUYAH_000036743
CUYAH_000036274	CUYAH_000036481	CUYAH_000036745
CUYAH_000036277	CUYAH_000036537	CUYAH_000036751
CUYAH_000036281	CUYAH_000036546	CUYAH_000036752
CUYAH_000036282	CUYAH_000036549	CUYAH_000036753
CUYAH_000036285	CUYAH_000036550	CUYAH_000036758
CUYAH_000036286	CUYAH_000036553	CUYAH_000036759
CUYAH_000036287	CUYAH_000036560	CUYAH_000036769
CUYAH_000036288	CUYAH_000036561	CUYAH_000036776
CUYAH_000036289	CUYAH_000036562	CUYAH_000036788
CUYAH_000036295	CUYAH_000036567	CUYAH_000036799
CUYAH_000036296	CUYAH_000036568	CUYAH_000036800
CUYAH_000036297	CUYAH_000036572	CUYAH_000036801
CUYAH_000036298	CUYAH_000036573	CUYAH_000036802
CUYAH_000036302	CUYAH_000036578	CUYAH_000036803
CUYAH_000036303	CUYAH_000036591	CUYAH_000036814
CUYAH_000036304	CUYAH_000036602	CUYAH_000036815
CUYAH_000036305	CUYAH_000036615	CUYAH_000036816
CUYAH_000036308	CUYAH_000036616	CUYAH_000036817
CUYAH_000036309	CUYAH_000036617	CUYAH_000036818
CUYAH_000036310	CUYAH_000036618	CUYAH_000036822
CUYAH_000036311	CUYAH_000036625	CUYAH_000036823
CUYAH_000036317	CUYAH_000036626	CUYAH_000036833
CUYAH_000036321	CUYAH_000036627	CUYAH_000036834
CUYAH_000036325	CUYAH_000036634	CUYAH_000036835
CUYAH_000036332	CUYAH_000036635	CUYAH_000036836
CUYAH_000036336	CUYAH_000036638	CUYAH_000036838
CUYAH_000036338	CUYAH_000036645	CUYAH_000036845
CUYAH_000036342	CUYAH_000036646	CUYAH_000036846
CUYAH_000036343	CUYAH_000036653	CUYAH_000036847
CUYAH_000036346	CUYAH_000036677	CUYAH_000036854
CUYAH_000036351	CUYAH_000036679	CUYAH_000036856
CUYAH_000036354	CUYAH_000036680	CUYAH_000036857
CUYAH_000036355	CUYAH_000036681	CUYAH_000036858
CUYAH_000036356	CUYAH_000036682	CUYAH_000036859
CUYAH_000036357	CUYAH_000036683	CUYAH_000036860
CUYAH_000036361	CUYAH_000036687	CUYAH_000036861
CUYAH_000036362	CUYAH_000036696	CUYAH_000036862
CUYAH_000036371	CUYAH_000036697	CUYAH_000036863
CUYAH_000036372	CUYAH_000036698	CUYAH_000036867
CUYAH_000036379	CUYAH_000036708	CUYAH_000036873
CUYAH_000036383	CUYAH_000036712	CUYAH_000036874
CUYAH_000036384	CUYAH_000036713	CUYAH_000036882
CUYAH_000036387	CUYAH_000036715	CUYAH_000036883
CUYAH_000036388	CUYAH_000036716	CUYAH_000036889
CUYAH_000036390	CUYAH_000036717	CUYAH_000036890
CUYAH_000036399	CUYAH_000036721	CUYAH_000036891
CUYAH_000036404	CUYAH_000036723	CUYAH_000036892
CUYAH_000036415	CUYAH_000036724	CUYAH_000036896
CUYAH_000036416	CUYAH_000036729	CUYAH_000036900
CUYAH_000036417	CUYAH_000036738	CUYAH_000036903

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000036905	CUYAH_000037053	CUYAH_000037223
CUYAH_000036906	CUYAH_000037058	CUYAH_000037224
CUYAH_000036907	CUYAH_000037061	CUYAH_000037228
CUYAH_000036908	CUYAH_000037062	CUYAH_000037229
CUYAH_000036909	CUYAH_000037063	CUYAH_000037230
CUYAH_000036910	CUYAH_000037066	CUYAH_000037234
CUYAH_000036915	CUYAH_000037070	CUYAH_000037235
CUYAH_000036916	CUYAH_000037072	CUYAH_000037236
CUYAH_000036917	CUYAH_000037077	CUYAH_000037237
CUYAH_000036918	CUYAH_000037078	CUYAH_000037240
CUYAH_000036931	CUYAH_000037079	CUYAH_000037248
CUYAH_000036932	CUYAH_000037080	CUYAH_000037249
CUYAH_000036934	CUYAH_000037086	CUYAH_000037250
CUYAH_000036936	CUYAH_000037088	CUYAH_000037255
CUYAH_000036937	CUYAH_000037094	CUYAH_000037256
CUYAH_000036945	CUYAH_000037095	CUYAH_000037257
CUYAH_000036947	CUYAH_000037098	CUYAH_000037258
CUYAH_000036951	CUYAH_000037099	CUYAH_000037260
CUYAH_000036960	CUYAH_000037100	CUYAH_000037261
CUYAH_000036961	CUYAH_000037103	CUYAH_000037262
CUYAH_000036965	CUYAH_000037104	CUYAH_000037264
CUYAH_000036967	CUYAH_000037119	CUYAH_000037272
CUYAH_000036968	CUYAH_000037120	CUYAH_000037275
CUYAH_000036969	CUYAH_000037123	CUYAH_000037281
CUYAH_000036970	CUYAH_000037127	CUYAH_000037282
CUYAH_000036971	CUYAH_000037131	CUYAH_000037283
CUYAH_000036972	CUYAH_000037132	CUYAH_000037294
CUYAH_000036973	CUYAH_000037133	CUYAH_000037296
CUYAH_000036974	CUYAH_000037136	CUYAH_000037299
CUYAH_000036975	CUYAH_000037151	CUYAH_000037300
CUYAH_000036977	CUYAH_000037152	CUYAH_000037306
CUYAH_000036982	CUYAH_000037154	CUYAH_000037327
CUYAH_000036983	CUYAH_000037163	CUYAH_000037331
CUYAH_000036994	CUYAH_000037166	CUYAH_000037337
CUYAH_000036998	CUYAH_000037167	CUYAH_000037339
CUYAH_000036999	CUYAH_000037173	CUYAH_000037340
CUYAH_000037003	CUYAH_000037174	CUYAH_000037341
CUYAH_000037006	CUYAH_000037176	CUYAH_000037342
CUYAH_000037007	CUYAH_000037177	CUYAH_000037343
CUYAH_000037008	CUYAH_000037192	CUYAH_000037350
CUYAH_000037020	CUYAH_000037193	CUYAH_000037351
CUYAH_000037021	CUYAH_000037194	CUYAH_000037356
CUYAH_000037022	CUYAH_000037195	CUYAH_000037357
CUYAH_000037023	CUYAH_000037201	CUYAH_000037358
CUYAH_000037024	CUYAH_000037208	CUYAH_000037359
CUYAH_000037028	CUYAH_000037215	CUYAH_000037360
CUYAH_000037029	CUYAH_000037216	CUYAH_000037361
CUYAH_000037041	CUYAH_000037217	CUYAH_000037362
CUYAH_000037042	CUYAH_000037218	CUYAH_000037363
CUYAH_000037044	CUYAH_000037219	CUYAH_000037365
CUYAH_000037051	CUYAH_000037220	CUYAH_000037375
CUYAH_000037052	CUYAH_000037221	CUYAH_000037376

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000037378	CUYAH_000037662	CUYAH_000037837
CUYAH_000037383	CUYAH_000037663	CUYAH_000037840
CUYAH_000037385	CUYAH_000037664	CUYAH_000037841
CUYAH_000037389	CUYAH_000037665	CUYAH_000037865
CUYAH_000037390	CUYAH_000037666	CUYAH_000037866
CUYAH_000037391	CUYAH_000037667	CUYAH_000037867
CUYAH_000037393	CUYAH_000037668	CUYAH_000037869
CUYAH_000037394	CUYAH_000037673	CUYAH_000037870
CUYAH_000037396	CUYAH_000037674	CUYAH_000037871
CUYAH_000037399	CUYAH_000037676	CUYAH_000037872
CUYAH_000037401	CUYAH_000037679	CUYAH_000037875
CUYAH_000037403	CUYAH_000037683	CUYAH_000037880
CUYAH_000037410	CUYAH_000037688	CUYAH_000037889
CUYAH_000037416	CUYAH_000037689	CUYAH_000037890
CUYAH_000037425	CUYAH_000037690	CUYAH_000037891
CUYAH_000037426	CUYAH_000037691	CUYAH_000037903
CUYAH_000037429	CUYAH_000037698	CUYAH_000037904
CUYAH_000037465	CUYAH_000037699	CUYAH_000037905
CUYAH_000037467	CUYAH_000037701	CUYAH_000037909
CUYAH_000037484	CUYAH_000037725	CUYAH_000037910
CUYAH_000037488	CUYAH_000037730	CUYAH_000037911
CUYAH_000037492	CUYAH_000037737	CUYAH_000037914
CUYAH_000037493	CUYAH_000037738	CUYAH_000037921
CUYAH_000037504	CUYAH_000037739	CUYAH_000037922
CUYAH_000037505	CUYAH_000037741	CUYAH_000037923
CUYAH_000037507	CUYAH_000037744	CUYAH_000037924
CUYAH_000037511	CUYAH_000037747	CUYAH_000037925
CUYAH_000037516	CUYAH_000037748	CUYAH_000037926
CUYAH_000037518	CUYAH_000037749	CUYAH_000037927
CUYAH_000037537	CUYAH_000037750	CUYAH_000037932
CUYAH_000037538	CUYAH_000037751	CUYAH_000037939
CUYAH_000037562	CUYAH_000037757	CUYAH_000037941
CUYAH_000037578	CUYAH_000037764	CUYAH_000037942
CUYAH_000037588	CUYAH_000037766	CUYAH_000037943
CUYAH_000037598	CUYAH_000037767	CUYAH_000037944
CUYAH_000037608	CUYAH_000037768	CUYAH_000037945
CUYAH_000037618	CUYAH_000037769	CUYAH_000037947
CUYAH_000037627	CUYAH_000037770	CUYAH_000037959
CUYAH_000037630	CUYAH_000037786	CUYAH_000037960
CUYAH_000037639	CUYAH_000037805	CUYAH_000037964
CUYAH_000037641	CUYAH_000037808	CUYAH_000037971
CUYAH_000037642	CUYAH_000037809	CUYAH_000037984
CUYAH_000037644	CUYAH_000037813	CUYAH_000037985
CUYAH_000037645	CUYAH_000037814	CUYAH_000037988
CUYAH_000037646	CUYAH_000037815	CUYAH_000037989
CUYAH_000037649	CUYAH_000037818	CUYAH_000038037
CUYAH_000037650	CUYAH_000037822	CUYAH_000038038
CUYAH_000037651	CUYAH_000037829	CUYAH_000038044
CUYAH_000037656	CUYAH_000037831	CUYAH_000038052
CUYAH_000037658	CUYAH_000037833	CUYAH_000038064
CUYAH_000037659	CUYAH_000037834	CUYAH_000038065
CUYAH_000037660	CUYAH_000037836	CUYAH_000038066

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000038067	CUYAH_000038240	CUYAH_000038465
CUYAH_000038068	CUYAH_000038241	CUYAH_000038467
CUYAH_000038073	CUYAH_000038242	CUYAH_000038484
CUYAH_000038078	CUYAH_000038260	CUYAH_000038485
CUYAH_000038079	CUYAH_000038272	CUYAH_000038486
CUYAH_000038080	CUYAH_000038273	CUYAH_000038487
CUYAH_000038081	CUYAH_000038274	CUYAH_000038489
CUYAH_000038082	CUYAH_000038284	CUYAH_000038491
CUYAH_000038083	CUYAH_000038285	CUYAH_000038492
CUYAH_000038084	CUYAH_000038286	CUYAH_000038493
CUYAH_000038088	CUYAH_000038287	CUYAH_000038498
CUYAH_000038094	CUYAH_000038288	CUYAH_000038499
CUYAH_000038098	CUYAH_000038290	CUYAH_000038500
CUYAH_000038101	CUYAH_000038291	CUYAH_000038503
CUYAH_000038102	CUYAH_000038293	CUYAH_000038509
CUYAH_000038103	CUYAH_000038294	CUYAH_000038516
CUYAH_000038105	CUYAH_000038300	CUYAH_000038520
CUYAH_000038106	CUYAH_000038301	CUYAH_000038521
CUYAH_000038107	CUYAH_000038308	CUYAH_000038524
CUYAH_000038111	CUYAH_000038309	CUYAH_000038535
CUYAH_000038140	CUYAH_000038311	CUYAH_000038542
CUYAH_000038149	CUYAH_000038313	CUYAH_000038543
CUYAH_000038151	CUYAH_000038315	CUYAH_000038544
CUYAH_000038152	CUYAH_000038316	CUYAH_000038545
CUYAH_000038153	CUYAH_000038326	CUYAH_000038546
CUYAH_000038159	CUYAH_000038354	CUYAH_000038548
CUYAH_000038160	CUYAH_000038360	CUYAH_000038553
CUYAH_000038161	CUYAH_000038363	CUYAH_000038555
CUYAH_000038172	CUYAH_000038368	CUYAH_000038557
CUYAH_000038181	CUYAH_000038383	CUYAH_000038562
CUYAH_000038182	CUYAH_000038394	CUYAH_000038565
CUYAH_000038183	CUYAH_000038395	CUYAH_000038577
CUYAH_000038185	CUYAH_000038405	CUYAH_000038578
CUYAH_000038186	CUYAH_000038408	CUYAH_000038579
CUYAH_000038187	CUYAH_000038409	CUYAH_000038580
CUYAH_000038188	CUYAH_000038421	CUYAH_000038584
CUYAH_000038190	CUYAH_000038425	CUYAH_000038588
CUYAH_000038192	CUYAH_000038426	CUYAH_000038592
CUYAH_000038193	CUYAH_000038427	CUYAH_000038593
CUYAH_000038194	CUYAH_000038436	CUYAH_000038600
CUYAH_000038195	CUYAH_000038442	CUYAH_000038606
CUYAH_000038196	CUYAH_000038443	CUYAH_000038612
CUYAH_000038197	CUYAH_000038444	CUYAH_000038613
CUYAH_000038205	CUYAH_000038448	CUYAH_000038616
CUYAH_000038206	CUYAH_000038451	CUYAH_000038618
CUYAH_000038219	CUYAH_000038452	CUYAH_000038620
CUYAH_000038223	CUYAH_000038455	CUYAH_000038624
CUYAH_000038224	CUYAH_000038456	CUYAH_000038625
CUYAH_000038234	CUYAH_000038457	CUYAH_000038627
CUYAH_000038235	CUYAH_000038459	CUYAH_000038643
CUYAH_000038236	CUYAH_000038461	CUYAH_000038644
CUYAH_000038238	CUYAH_000038462	CUYAH_000038648

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000038651	CUYAH_000038842	CUYAH_000038993
CUYAH_000038655	CUYAH_000038844	CUYAH_000038995
CUYAH_000038658	CUYAH_000038845	CUYAH_000038996
CUYAH_000038672	CUYAH_000038850	CUYAH_000039003
CUYAH_000038673	CUYAH_000038851	CUYAH_000039021
CUYAH_000038674	CUYAH_000038858	CUYAH_000039022
CUYAH_000038675	CUYAH_000038870	CUYAH_000039023
CUYAH_000038680	CUYAH_000038875	CUYAH_000039024
CUYAH_000038681	CUYAH_000038876	CUYAH_000039026
CUYAH_000038682	CUYAH_000038881	CUYAH_000039030
CUYAH_000038683	CUYAH_000038882	CUYAH_000039032
CUYAH_000038694	CUYAH_000038883	CUYAH_000039035
CUYAH_000038696	CUYAH_000038884	CUYAH_000039038
CUYAH_000038699	CUYAH_000038887	CUYAH_000039042
CUYAH_000038708	CUYAH_000038888	CUYAH_000039046
CUYAH_000038709	CUYAH_000038890	CUYAH_000039047
CUYAH_000038711	CUYAH_000038894	CUYAH_000039048
CUYAH_000038712	CUYAH_000038895	CUYAH_000039049
CUYAH_000038714	CUYAH_000038896	CUYAH_000039050
CUYAH_000038718	CUYAH_000038897	CUYAH_000039051
CUYAH_000038725	CUYAH_000038901	CUYAH_000039057
CUYAH_000038726	CUYAH_000038902	CUYAH_000039058
CUYAH_000038733	CUYAH_000038903	CUYAH_000039059
CUYAH_000038734	CUYAH_000038908	CUYAH_000039060
CUYAH_000038737	CUYAH_000038910	CUYAH_000039061
CUYAH_000038738	CUYAH_000038914	CUYAH_000039062
CUYAH_000038742	CUYAH_000038915	CUYAH_000039063
CUYAH_000038743	CUYAH_000038916	CUYAH_000039064
CUYAH_000038750	CUYAH_000038918	CUYAH_000039067
CUYAH_000038752	CUYAH_000038925	CUYAH_000039070
CUYAH_000038753	CUYAH_000038926	CUYAH_000039071
CUYAH_000038754	CUYAH_000038927	CUYAH_000039073
CUYAH_000038755	CUYAH_000038931	CUYAH_000039074
CUYAH_000038760	CUYAH_000038932	CUYAH_000039075
CUYAH_000038761	CUYAH_000038933	CUYAH_000039077
CUYAH_000038763	CUYAH_000038943	CUYAH_000039078
CUYAH_000038771	CUYAH_000038944	CUYAH_000039080
CUYAH_000038772	CUYAH_000038946	CUYAH_000039084
CUYAH_000038775	CUYAH_000038947	CUYAH_000039085
CUYAH_000038788	CUYAH_000038948	CUYAH_000039086
CUYAH_000038792	CUYAH_000038953	CUYAH_000039087
CUYAH_000038808	CUYAH_000038954	CUYAH_000039088
CUYAH_000038810	CUYAH_000038959	CUYAH_000039089
CUYAH_000038811	CUYAH_000038960	CUYAH_000039090
CUYAH_000038814	CUYAH_000038961	CUYAH_000039099
CUYAH_000038816	CUYAH_000038969	CUYAH_000039102
CUYAH_000038817	CUYAH_000038978	CUYAH_000039103
CUYAH_000038818	CUYAH_000038979	CUYAH_000039106
CUYAH_000038819	CUYAH_000038981	CUYAH_000039107
CUYAH_000038836	CUYAH_000038984	CUYAH_000039118
CUYAH_000038839	CUYAH_000038985	CUYAH_000039119
CUYAH_000038841	CUYAH_000038991	CUYAH_000039121

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000039122	CUYAH_000039282	CUYAH_000039490
CUYAH_000039123	CUYAH_000039284	CUYAH_000039494
CUYAH_000039131	CUYAH_000039285	CUYAH_000039495
CUYAH_000039132	CUYAH_000039305	CUYAH_000039496
CUYAH_000039134	CUYAH_000039306	CUYAH_000039498
CUYAH_000039136	CUYAH_000039314	CUYAH_000039502
CUYAH_000039137	CUYAH_000039316	CUYAH_000039503
CUYAH_000039138	CUYAH_000039317	CUYAH_000039508
CUYAH_000039141	CUYAH_000039318	CUYAH_000039509
CUYAH_000039142	CUYAH_000039319	CUYAH_000039510
CUYAH_000039144	CUYAH_000039321	CUYAH_000039512
CUYAH_000039151	CUYAH_000039323	CUYAH_000039513
CUYAH_000039154	CUYAH_000039327	CUYAH_000039518
CUYAH_000039159	CUYAH_000039337	CUYAH_000039519
CUYAH_000039168	CUYAH_000039338	CUYAH_000039523
CUYAH_000039170	CUYAH_000039340	CUYAH_000039526
CUYAH_000039171	CUYAH_000039342	CUYAH_000039527
CUYAH_000039179	CUYAH_000039343	CUYAH_000039529
CUYAH_000039181	CUYAH_000039344	CUYAH_000039530
CUYAH_000039186	CUYAH_000039345	CUYAH_000039531
CUYAH_000039188	CUYAH_000039346	CUYAH_000039545
CUYAH_000039189	CUYAH_000039351	CUYAH_000039551
CUYAH_000039193	CUYAH_000039353	CUYAH_000039553
CUYAH_000039201	CUYAH_000039354	CUYAH_000039564
CUYAH_000039203	CUYAH_000039356	CUYAH_000039569
CUYAH_000039204	CUYAH_000039359	CUYAH_000039570
CUYAH_000039209	CUYAH_000039367	CUYAH_000039577
CUYAH_000039210	CUYAH_000039368	CUYAH_000039579
CUYAH_000039219	CUYAH_000039369	CUYAH_000039580
CUYAH_000039221	CUYAH_000039381	CUYAH_000039581
CUYAH_000039222	CUYAH_000039385	CUYAH_000039582
CUYAH_000039223	CUYAH_000039388	CUYAH_000039583
CUYAH_000039235	CUYAH_000039395	CUYAH_000039586
CUYAH_000039236	CUYAH_000039396	CUYAH_000039591
CUYAH_000039237	CUYAH_000039399	CUYAH_000039593
CUYAH_000039244	CUYAH_000039416	CUYAH_000039602
CUYAH_000039245	CUYAH_000039420	CUYAH_000039606
CUYAH_000039246	CUYAH_000039422	CUYAH_000039666
CUYAH_000039247	CUYAH_000039428	CUYAH_000039680
CUYAH_000039248	CUYAH_000039430	CUYAH_000039681
CUYAH_000039251	CUYAH_000039432	CUYAH_000039682
CUYAH_000039255	CUYAH_000039454	CUYAH_000039683
CUYAH_000039260	CUYAH_000039455	CUYAH_000039687
CUYAH_000039262	CUYAH_000039456	CUYAH_000039691
CUYAH_000039263	CUYAH_000039460	CUYAH_000039692
CUYAH_000039264	CUYAH_000039464	CUYAH_000039695
CUYAH_000039272	CUYAH_000039470	CUYAH_000039698
CUYAH_000039274	CUYAH_000039471	CUYAH_000039700
CUYAH_000039275	CUYAH_000039472	CUYAH_000039701
CUYAH_000039276	CUYAH_000039477	CUYAH_000039705
CUYAH_000039279	CUYAH_000039481	CUYAH_000039709
CUYAH_000039281	CUYAH_000039485	CUYAH_000039713

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000039714	CUYAH_000039868	CUYAH_000040013
CUYAH_000039715	CUYAH_000039871	CUYAH_000040016
CUYAH_000039717	CUYAH_000039872	CUYAH_000040018
CUYAH_000039718	CUYAH_000039874	CUYAH_000040035
CUYAH_000039719	CUYAH_000039875	CUYAH_000040036
CUYAH_000039721	CUYAH_000039876	CUYAH_000040037
CUYAH_000039722	CUYAH_000039883	CUYAH_000040038
CUYAH_000039726	CUYAH_000039884	CUYAH_000040039
CUYAH_000039727	CUYAH_000039885	CUYAH_000040040
CUYAH_000039729	CUYAH_000039894	CUYAH_000040041
CUYAH_000039730	CUYAH_000039895	CUYAH_000040042
CUYAH_000039737	CUYAH_000039896	CUYAH_000040043
CUYAH_000039744	CUYAH_000039898	CUYAH_000040044
CUYAH_000039756	CUYAH_000039913	CUYAH_000040045
CUYAH_000039757	CUYAH_000039916	CUYAH_000040046
CUYAH_000039760	CUYAH_000039920	CUYAH_000040047
CUYAH_000039765	CUYAH_000039924	CUYAH_000040048
CUYAH_000039766	CUYAH_000039927	CUYAH_000040049
CUYAH_000039767	CUYAH_000039928	CUYAH_000040050
CUYAH_000039772	CUYAH_000039929	CUYAH_000040051
CUYAH_000039773	CUYAH_000039930	CUYAH_000040054
CUYAH_000039777	CUYAH_000039931	CUYAH_000040056
CUYAH_000039778	CUYAH_000039932	CUYAH_000040057
CUYAH_000039780	CUYAH_000039933	CUYAH_000040061
CUYAH_000039785	CUYAH_000039934	CUYAH_000040064
CUYAH_000039790	CUYAH_000039935	CUYAH_000040065
CUYAH_000039791	CUYAH_000039936	CUYAH_000040066
CUYAH_000039797	CUYAH_000039937	CUYAH_000040071
CUYAH_000039798	CUYAH_000039938	CUYAH_000040076
CUYAH_000039800	CUYAH_000039939	CUYAH_000040086
CUYAH_000039813	CUYAH_000039941	CUYAH_000040087
CUYAH_000039819	CUYAH_000039943	CUYAH_000040089
CUYAH_000039820	CUYAH_000039945	CUYAH_000040091
CUYAH_000039822	CUYAH_000039946	CUYAH_000040096
CUYAH_000039825	CUYAH_000039947	CUYAH_000040104
CUYAH_000039830	CUYAH_000039954	CUYAH_000040109
CUYAH_000039831	CUYAH_000039958	CUYAH_000040110
CUYAH_000039833	CUYAH_000039960	CUYAH_000040117
CUYAH_000039834	CUYAH_000039965	CUYAH_000040118
CUYAH_000039835	CUYAH_000039967	CUYAH_000040121
CUYAH_000039836	CUYAH_000039975	CUYAH_000040123
CUYAH_000039842	CUYAH_000039981	CUYAH_000040124
CUYAH_000039843	CUYAH_000039982	CUYAH_000040129
CUYAH_000039844	CUYAH_000039986	CUYAH_000040131
CUYAH_000039845	CUYAH_000039989	CUYAH_000040146
CUYAH_000039846	CUYAH_000039991	CUYAH_000040149
CUYAH_000039847	CUYAH_000039992	CUYAH_000040151
CUYAH_000039852	CUYAH_000039993	CUYAH_000040153
CUYAH_000039855	CUYAH_000040006	CUYAH_000040154
CUYAH_000039857	CUYAH_000040007	CUYAH_000040156
CUYAH_000039861	CUYAH_000040008	CUYAH_000040157
CUYAH_000039867	CUYAH_000040011	CUYAH_000040158

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000040159	CUYAH_000040332	CUYAH_000040551
CUYAH_000040162	CUYAH_000040336	CUYAH_000040562
CUYAH_000040167	CUYAH_000040345	CUYAH_000040563
CUYAH_000040168	CUYAH_000040351	CUYAH_000040565
CUYAH_000040192	CUYAH_000040352	CUYAH_000040575
CUYAH_000040193	CUYAH_000040353	CUYAH_000040576
CUYAH_000040194	CUYAH_000040360	CUYAH_000040577
CUYAH_000040196	CUYAH_000040362	CUYAH_000040579
CUYAH_000040197	CUYAH_000040364	CUYAH_000040584
CUYAH_000040199	CUYAH_000040366	CUYAH_000040587
CUYAH_000040205	CUYAH_000040372	CUYAH_000040592
CUYAH_000040207	CUYAH_000040373	CUYAH_000040593
CUYAH_000040208	CUYAH_000040375	CUYAH_000040608
CUYAH_000040209	CUYAH_000040378	CUYAH_000040609
CUYAH_000040211	CUYAH_000040379	CUYAH_000040610
CUYAH_000040212	CUYAH_000040380	CUYAH_000040611
CUYAH_000040215	CUYAH_000040381	CUYAH_000040612
CUYAH_000040216	CUYAH_000040382	CUYAH_000040613
CUYAH_000040218	CUYAH_000040389	CUYAH_000040657
CUYAH_000040225	CUYAH_000040391	CUYAH_000040678
CUYAH_000040226	CUYAH_000040397	CUYAH_000040680
CUYAH_000040227	CUYAH_000040401	CUYAH_000040682
CUYAH_000040238	CUYAH_000040409	CUYAH_000040684
CUYAH_000040239	CUYAH_000040415	CUYAH_000040688
CUYAH_000040240	CUYAH_000040432	CUYAH_000040689
CUYAH_000040241	CUYAH_000040437	CUYAH_000040708
CUYAH_000040242	CUYAH_000040449	CUYAH_000040711
CUYAH_000040244	CUYAH_000040451	CUYAH_000040712
CUYAH_000040245	CUYAH_000040453	CUYAH_000040713
CUYAH_000040249	CUYAH_000040454	CUYAH_000040715
CUYAH_000040252	CUYAH_000040457	CUYAH_000040716
CUYAH_000040254	CUYAH_000040458	CUYAH_000040722
CUYAH_000040258	CUYAH_000040459	CUYAH_000040729
CUYAH_000040268	CUYAH_000040460	CUYAH_000040731
CUYAH_000040269	CUYAH_000040461	CUYAH_000040733
CUYAH_000040272	CUYAH_000040467	CUYAH_000040742
CUYAH_000040275	CUYAH_000040469	CUYAH_000040744
CUYAH_000040281	CUYAH_000040473	CUYAH_000040745
CUYAH_000040282	CUYAH_000040474	CUYAH_000040746
CUYAH_000040288	CUYAH_000040478	CUYAH_000040747
CUYAH_000040292	CUYAH_000040479	CUYAH_000040752
CUYAH_000040294	CUYAH_000040480	CUYAH_000040771
CUYAH_000040306	CUYAH_000040481	CUYAH_000040772
CUYAH_000040311	CUYAH_000040483	CUYAH_000040773
CUYAH_000040312	CUYAH_000040495	CUYAH_000040774
CUYAH_000040313	CUYAH_000040496	CUYAH_000040775
CUYAH_000040315	CUYAH_000040497	CUYAH_000040778
CUYAH_000040316	CUYAH_000040498	CUYAH_000040781
CUYAH_000040317	CUYAH_000040502	CUYAH_000040782
CUYAH_000040318	CUYAH_000040518	CUYAH_000040784
CUYAH_000040319	CUYAH_000040519	CUYAH_000040787
CUYAH_000040320	CUYAH_000040535	CUYAH_000040790

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000040791	CUYAH_000040965	CUYAH_000041189
CUYAH_000040794	CUYAH_000040966	CUYAH_000041192
CUYAH_000040795	CUYAH_000040973	CUYAH_000041193
CUYAH_000040796	CUYAH_000040978	CUYAH_000041196
CUYAH_000040807	CUYAH_000040979	CUYAH_000041199
CUYAH_000040810	CUYAH_000040982	CUYAH_000041200
CUYAH_000040811	CUYAH_000040987	CUYAH_000041201
CUYAH_000040812	CUYAH_000041002	CUYAH_000041207
CUYAH_000040814	CUYAH_000041008	CUYAH_000041212
CUYAH_000040815	CUYAH_000041012	CUYAH_000041218
CUYAH_000040817	CUYAH_000041015	CUYAH_000041219
CUYAH_000040821	CUYAH_000041016	CUYAH_000041221
CUYAH_000040823	CUYAH_000041019	CUYAH_000041232
CUYAH_000040825	CUYAH_000041022	CUYAH_000041234
CUYAH_000040827	CUYAH_000041023	CUYAH_000041243
CUYAH_000040828	CUYAH_000041026	CUYAH_000041248
CUYAH_000040839	CUYAH_000041031	CUYAH_000041249
CUYAH_000040843	CUYAH_000041032	CUYAH_000041251
CUYAH_000040851	CUYAH_000041033	CUYAH_000041260
CUYAH_000040854	CUYAH_000041037	CUYAH_000041268
CUYAH_000040856	CUYAH_000041044	CUYAH_000041279
CUYAH_000040858	CUYAH_000041048	CUYAH_000041282
CUYAH_000040862	CUYAH_000041052	CUYAH_000041308
CUYAH_000040866	CUYAH_000041064	CUYAH_000041310
CUYAH_000040869	CUYAH_000041067	CUYAH_000041312
CUYAH_000040870	CUYAH_000041069	CUYAH_000041314
CUYAH_000040871	CUYAH_000041074	CUYAH_000041317
CUYAH_000040880	CUYAH_000041080	CUYAH_000041318
CUYAH_000040883	CUYAH_000041085	CUYAH_000041325
CUYAH_000040884	CUYAH_000041093	CUYAH_000041329
CUYAH_000040886	CUYAH_000041097	CUYAH_000041333
CUYAH_000040890	CUYAH_000041099	CUYAH_000041338
CUYAH_000040892	CUYAH_000041103	CUYAH_000041339
CUYAH_000040895	CUYAH_000041105	CUYAH_000041341
CUYAH_000040896	CUYAH_000041123	CUYAH_000041344
CUYAH_000040897	CUYAH_000041129	CUYAH_000041357
CUYAH_000040898	CUYAH_000041130	CUYAH_000041358
CUYAH_000040903	CUYAH_000041136	CUYAH_000041360
CUYAH_000040905	CUYAH_000041137	CUYAH_000041368
CUYAH_000040907	CUYAH_000041139	CUYAH_000041369
CUYAH_000040912	CUYAH_000041142	CUYAH_000041371
CUYAH_000040915	CUYAH_000041144	CUYAH_000041373
CUYAH_000040917	CUYAH_000041146	CUYAH_000041380
CUYAH_000040920	CUYAH_000041147	CUYAH_000041392
CUYAH_000040922	CUYAH_000041155	CUYAH_000041404
CUYAH_000040927	CUYAH_000041161	CUYAH_000041414
CUYAH_000040932	CUYAH_000041168	CUYAH_000041415
CUYAH_000040934	CUYAH_000041171	CUYAH_000041420
CUYAH_000040935	CUYAH_000041177	CUYAH_000041421
CUYAH_000040939	CUYAH_000041180	CUYAH_000041424
CUYAH_000040946	CUYAH_000041186	CUYAH_000041427
CUYAH_000040948	CUYAH_000041187	CUYAH_000041431

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000041449	CUYAH_000041680	CUYAH_000042030
CUYAH_000041450	CUYAH_000041788	CUYAH_000042034
CUYAH_000041451	CUYAH_000041800	CUYAH_000042038
CUYAH_000041462	CUYAH_000041810	CUYAH_000042040
CUYAH_000041464	CUYAH_000041815	CUYAH_000042043
CUYAH_000041466	CUYAH_000041820	CUYAH_000042049
CUYAH_000041468	CUYAH_000041822	CUYAH_000042058
CUYAH_000041472	CUYAH_000041824	CUYAH_000042070
CUYAH_000041481	CUYAH_000041827	CUYAH_000042077
CUYAH_000041486	CUYAH_000041831	CUYAH_000042093
CUYAH_000041490	CUYAH_000041836	CUYAH_000042096
CUYAH_000041492	CUYAH_000041838	CUYAH_000042100
CUYAH_000041497	CUYAH_000041850	CUYAH_000042102
CUYAH_000041499	CUYAH_000041858	CUYAH_000042110
CUYAH_000041501	CUYAH_000041860	CUYAH_000042112
CUYAH_000041503	CUYAH_000041862	CUYAH_000042121
CUYAH_000041506	CUYAH_000041866	CUYAH_000042125
CUYAH_000041511	CUYAH_000041871	CUYAH_000042128
CUYAH_000041513	CUYAH_000041879	CUYAH_000042129
CUYAH_000041520	CUYAH_000041882	CUYAH_000042132
CUYAH_000041524	CUYAH_000041890	CUYAH_000042137
CUYAH_000041530	CUYAH_000041892	CUYAH_000042140
CUYAH_000041539	CUYAH_000041896	CUYAH_000042148
CUYAH_000041544	CUYAH_000041900	CUYAH_000042161
CUYAH_000041545	CUYAH_000041909	CUYAH_000042162
CUYAH_000041546	CUYAH_000041911	CUYAH_000042164
CUYAH_000041547	CUYAH_000041917	CUYAH_000042166
CUYAH_000041549	CUYAH_000041918	CUYAH_000042168
CUYAH_000041555	CUYAH_000041920	CUYAH_000042170
CUYAH_000041560	CUYAH_000041922	CUYAH_000042177
CUYAH_000041567	CUYAH_000041926	CUYAH_000042184
CUYAH_000041570	CUYAH_000041933	CUYAH_000042186
CUYAH_000041572	CUYAH_000041935	CUYAH_000042190
CUYAH_000041574	CUYAH_000041939	CUYAH_000042196
CUYAH_000041576	CUYAH_000041951	CUYAH_000042201
CUYAH_000041578	CUYAH_000041959	CUYAH_000042202
CUYAH_000041582	CUYAH_000041961	CUYAH_000042204
CUYAH_000041591	CUYAH_000041965	CUYAH_000042207
CUYAH_000041616	CUYAH_000041967	CUYAH_000042209
CUYAH_000041626	CUYAH_000041969	CUYAH_000042213
CUYAH_000041630	CUYAH_000041974	CUYAH_000042215
CUYAH_000041632	CUYAH_000041976	CUYAH_000042226
CUYAH_000041639	CUYAH_000041988	CUYAH_000042228
CUYAH_000041640	CUYAH_000041992	CUYAH_000042230
CUYAH_000041641	CUYAH_000041994	CUYAH_000042232
CUYAH_000041646	CUYAH_000041997	CUYAH_000042236
CUYAH_000041649	CUYAH_000042006	CUYAH_000042239
CUYAH_000041662	CUYAH_000042010	CUYAH_000042241
CUYAH_000041668	CUYAH_000042011	CUYAH_000042244
CUYAH_000041673	CUYAH_000042015	CUYAH_000042245
CUYAH_000041675	CUYAH_000042022	CUYAH_000042248
CUYAH_000041677	CUYAH_000042025	CUYAH_000042256

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000042261	CUYAH_000042526	CUYAH_000042792
CUYAH_000042278	CUYAH_000042533	CUYAH_000042794
CUYAH_000042284	CUYAH_000042535	CUYAH_000042800
CUYAH_000042289	CUYAH_000042537	CUYAH_000042805
CUYAH_000042294	CUYAH_000042538	CUYAH_000042806
CUYAH_000042297	CUYAH_000042539	CUYAH_000042808
CUYAH_000042298	CUYAH_000042547	CUYAH_000042813
CUYAH_000042302	CUYAH_000042548	CUYAH_000042821
CUYAH_000042305	CUYAH_000042550	CUYAH_000042830
CUYAH_000042310	CUYAH_000042552	CUYAH_000042835
CUYAH_000042317	CUYAH_000042555	CUYAH_000042840
CUYAH_000042322	CUYAH_000042561	CUYAH_000042843
CUYAH_000042324	CUYAH_000042567	CUYAH_000042844
CUYAH_000042342	CUYAH_000042569	CUYAH_000042846
CUYAH_000042354	CUYAH_000042571	CUYAH_000042847
CUYAH_000042362	CUYAH_000042573	CUYAH_000042849
CUYAH_000042366	CUYAH_000042580	CUYAH_000042859
CUYAH_000042369	CUYAH_000042596	CUYAH_000042860
CUYAH_000042374	CUYAH_000042616	CUYAH_000042861
CUYAH_000042378	CUYAH_000042621	CUYAH_000042868
CUYAH_000042383	CUYAH_000042630	CUYAH_000042874
CUYAH_000042387	CUYAH_000042635	CUYAH_000042875
CUYAH_000042390	CUYAH_000042650	CUYAH_000042883
CUYAH_000042391	CUYAH_000042651	CUYAH_000042886
CUYAH_000042392	CUYAH_000042655	CUYAH_000042892
CUYAH_000042398	CUYAH_000042658	CUYAH_000042898
CUYAH_000042399	CUYAH_000042678	CUYAH_000042902
CUYAH_000042404	CUYAH_000042680	CUYAH_000042905
CUYAH_000042411	CUYAH_000042682	CUYAH_000042915
CUYAH_000042421	CUYAH_000042685	CUYAH_000042919
CUYAH_000042445	CUYAH_000042689	CUYAH_000042923
CUYAH_000042447	CUYAH_000042694	CUYAH_000042925
CUYAH_000042453	CUYAH_000042696	CUYAH_000042932
CUYAH_000042454	CUYAH_000042698	CUYAH_000042937
CUYAH_000042463	CUYAH_000042705	CUYAH_000042939
CUYAH_000042464	CUYAH_000042710	CUYAH_000042946
CUYAH_000042466	CUYAH_000042715	CUYAH_000042950
CUYAH_000042471	CUYAH_000042717	CUYAH_000042955
CUYAH_000042472	CUYAH_000042722	CUYAH_000042964
CUYAH_000042473	CUYAH_000042730	CUYAH_000042969
CUYAH_000042476	CUYAH_000042736	CUYAH_000042972
CUYAH_000042480	CUYAH_000042746	CUYAH_000042975
CUYAH_000042481	CUYAH_000042753	CUYAH_000042980
CUYAH_000042489	CUYAH_000042756	CUYAH_000042984
CUYAH_000042491	CUYAH_000042758	CUYAH_000042985
CUYAH_000042494	CUYAH_000042767	CUYAH_000042987
CUYAH_000042499	CUYAH_000042769	CUYAH_000042989
CUYAH_000042503	CUYAH_000042772	CUYAH_000043002
CUYAH_000042508	CUYAH_000042773	CUYAH_000043005
CUYAH_000042517	CUYAH_000042779	CUYAH_000043009
CUYAH_000042523	CUYAH_000042781	CUYAH_000043014
CUYAH_000042524	CUYAH_000042786	CUYAH_000043016

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000043019	CUYAH_000043318	CUYAH_000043529
CUYAH_000043024	CUYAH_000043319	CUYAH_000043532
CUYAH_000043026	CUYAH_000043321	CUYAH_000043534
CUYAH_000043028	CUYAH_000043330	CUYAH_000043537
CUYAH_000043030	CUYAH_000043331	CUYAH_000043547
CUYAH_000043032	CUYAH_000043333	CUYAH_000043553
CUYAH_000043092	CUYAH_000043347	CUYAH_000043560
CUYAH_000043094	CUYAH_000043349	CUYAH_000043568
CUYAH_000043105	CUYAH_000043357	CUYAH_000043577
CUYAH_000043107	CUYAH_000043360	CUYAH_000043579
CUYAH_000043109	CUYAH_000043366	CUYAH_000043581
CUYAH_000043115	CUYAH_000043368	CUYAH_000043588
CUYAH_000043120	CUYAH_000043380	CUYAH_000043604
CUYAH_000043124	CUYAH_000043385	CUYAH_000043608
CUYAH_000043132	CUYAH_000043386	CUYAH_000043610
CUYAH_000043133	CUYAH_000043388	CUYAH_000043620
CUYAH_000043135	CUYAH_000043389	CUYAH_000043625
CUYAH_000043138	CUYAH_000043391	CUYAH_000043631
CUYAH_000043141	CUYAH_000043393	CUYAH_000043639
CUYAH_000043143	CUYAH_000043394	CUYAH_000043642
CUYAH_000043148	CUYAH_000043396	CUYAH_000043648
CUYAH_000043156	CUYAH_000043398	CUYAH_000043657
CUYAH_000043159	CUYAH_000043399	CUYAH_000043662
CUYAH_000043161	CUYAH_000043401	CUYAH_000043669
CUYAH_000043166	CUYAH_000043407	CUYAH_000043670
CUYAH_000043167	CUYAH_000043427	CUYAH_000043674
CUYAH_000043169	CUYAH_000043435	CUYAH_000043676
CUYAH_000043176	CUYAH_000043437	CUYAH_000043678
CUYAH_000043177	CUYAH_000043439	CUYAH_000043680
CUYAH_000043187	CUYAH_000043444	CUYAH_000043683
CUYAH_000043189	CUYAH_000043452	CUYAH_000043686
CUYAH_000043195	CUYAH_000043461	CUYAH_000043687
CUYAH_000043200	CUYAH_000043464	CUYAH_000043690
CUYAH_000043206	CUYAH_000043466	CUYAH_000043693
CUYAH_000043233	CUYAH_000043468	CUYAH_000043695
CUYAH_000043234	CUYAH_000043472	CUYAH_000043697
CUYAH_000043239	CUYAH_000043474	CUYAH_000043698
CUYAH_000043244	CUYAH_000043478	CUYAH_000043700
CUYAH_000043246	CUYAH_000043479	CUYAH_000043703
CUYAH_000043249	CUYAH_000043481	CUYAH_000043711
CUYAH_000043252	CUYAH_000043483	CUYAH_000043720
CUYAH_000043253	CUYAH_000043486	CUYAH_000043724
CUYAH_000043268	CUYAH_000043487	CUYAH_000043736
CUYAH_000043270	CUYAH_000043489	CUYAH_000043738
CUYAH_000043273	CUYAH_000043490	CUYAH_000043739
CUYAH_000043281	CUYAH_000043496	CUYAH_000043741
CUYAH_000043286	CUYAH_000043504	CUYAH_000043749
CUYAH_000043293	CUYAH_000043510	CUYAH_000043751
CUYAH_000043299	CUYAH_000043514	CUYAH_000043752
CUYAH_000043305	CUYAH_000043515	CUYAH_000043753
CUYAH_000043311	CUYAH_000043516	CUYAH_000043755
CUYAH_000043315	CUYAH_000043518	CUYAH_000043757

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000043761	CUYAH_000043976	CUYAH_000044233
CUYAH_000043763	CUYAH_000043977	CUYAH_000044247
CUYAH_000043766	CUYAH_000043979	CUYAH_000044249
CUYAH_000043768	CUYAH_000043980	CUYAH_000044251
CUYAH_000043774	CUYAH_000043981	CUYAH_000044255
CUYAH_000043776	CUYAH_000043982	CUYAH_000044262
CUYAH_000043782	CUYAH_000043984	CUYAH_000044267
CUYAH_000043785	CUYAH_000043987	CUYAH_000044268
CUYAH_000043787	CUYAH_000043988	CUYAH_000044280
CUYAH_000043799	CUYAH_000043990	CUYAH_000044283
CUYAH_000043801	CUYAH_000043992	CUYAH_000044295
CUYAH_000043803	CUYAH_000043994	CUYAH_000044297
CUYAH_000043805	CUYAH_000043996	CUYAH_000044300
CUYAH_000043812	CUYAH_000043997	CUYAH_000044306
CUYAH_000043813	CUYAH_000044000	CUYAH_000044317
CUYAH_000043815	CUYAH_000044004	CUYAH_000044322
CUYAH_000043819	CUYAH_000044011	CUYAH_000044327
CUYAH_000043820	CUYAH_000044013	CUYAH_000044333
CUYAH_000043821	CUYAH_000044020	CUYAH_000044338
CUYAH_000043823	CUYAH_000044043	CUYAH_000044344
CUYAH_000043824	CUYAH_000044047	CUYAH_000044349
CUYAH_000043826	CUYAH_000044052	CUYAH_000044372
CUYAH_000043843	CUYAH_000044055	CUYAH_000044374
CUYAH_000043848	CUYAH_000044056	CUYAH_000044376
CUYAH_000043853	CUYAH_000044061	CUYAH_000044378
CUYAH_000043856	CUYAH_000044067	CUYAH_000044381
CUYAH_000043859	CUYAH_000044070	CUYAH_000044383
CUYAH_000043863	CUYAH_000044118	CUYAH_000044384
CUYAH_000043873	CUYAH_000044119	CUYAH_000044387
CUYAH_000043875	CUYAH_000044121	CUYAH_000044391
CUYAH_000043878	CUYAH_000044122	CUYAH_000044396
CUYAH_000043880	CUYAH_000044138	CUYAH_000044404
CUYAH_000043881	CUYAH_000044145	CUYAH_000044406
CUYAH_000043889	CUYAH_000044147	CUYAH_000044409
CUYAH_000043892	CUYAH_000044157	CUYAH_000044411
CUYAH_000043900	CUYAH_000044161	CUYAH_000044413
CUYAH_000043904	CUYAH_000044164	CUYAH_000044419
CUYAH_000043905	CUYAH_000044169	CUYAH_000044421
CUYAH_000043911	CUYAH_000044174	CUYAH_000044436
CUYAH_000043913	CUYAH_000044176	CUYAH_000044441
CUYAH_000043915	CUYAH_000044181	CUYAH_000044442
CUYAH_000043917	CUYAH_000044185	CUYAH_000044444
CUYAH_000043924	CUYAH_000044188	CUYAH_000044446
CUYAH_000043936	CUYAH_000044191	CUYAH_000044449
CUYAH_000043942	CUYAH_000044195	CUYAH_000044454
CUYAH_000043944	CUYAH_000044196	CUYAH_000044456
CUYAH_000043946	CUYAH_000044199	CUYAH_000044459
CUYAH_000043954	CUYAH_000044200	CUYAH_000044461
CUYAH_000043964	CUYAH_000044203	CUYAH_000044462
CUYAH_000043968	CUYAH_000044206	CUYAH_000044473
CUYAH_000043970	CUYAH_000044210	CUYAH_000044478
CUYAH_000043971	CUYAH_000044223	CUYAH_000044479

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000044484	CUYAH_000044740	CUYAH_000045045
CUYAH_000044486	CUYAH_000044743	CUYAH_000045048
CUYAH_000044488	CUYAH_000044749	CUYAH_000045051
CUYAH_000044500	CUYAH_000044751	CUYAH_000045053
CUYAH_000044505	CUYAH_000044758	CUYAH_000045057
CUYAH_000044507	CUYAH_000044760	CUYAH_000045058
CUYAH_000044512	CUYAH_000044764	CUYAH_000045062
CUYAH_000044526	CUYAH_000044770	CUYAH_000045073
CUYAH_000044530	CUYAH_000044775	CUYAH_000045085
CUYAH_000044533	CUYAH_000044776	CUYAH_000045087
CUYAH_000044535	CUYAH_000044779	CUYAH_000045097
CUYAH_000044540	CUYAH_000044781	CUYAH_000045099
CUYAH_000044544	CUYAH_000044783	CUYAH_000045101
CUYAH_000044553	CUYAH_000044785	CUYAH_000045103
CUYAH_000044562	CUYAH_000044854	CUYAH_000045105
CUYAH_000044568	CUYAH_000044869	CUYAH_000045106
CUYAH_000044571	CUYAH_000044876	CUYAH_000045108
CUYAH_000044573	CUYAH_000044895	CUYAH_000045109
CUYAH_000044574	CUYAH_000044897	CUYAH_000045116
CUYAH_000044578	CUYAH_000044899	CUYAH_000045121
CUYAH_000044580	CUYAH_000044900	CUYAH_000045126
CUYAH_000044582	CUYAH_000044904	CUYAH_000045149
CUYAH_000044583	CUYAH_000044906	CUYAH_000045157
CUYAH_000044584	CUYAH_000044913	CUYAH_000045158
CUYAH_000044585	CUYAH_000044915	CUYAH_000045162
CUYAH_000044587	CUYAH_000044920	CUYAH_000045166
CUYAH_000044592	CUYAH_000044922	CUYAH_000045168
CUYAH_000044596	CUYAH_000044924	CUYAH_000045170
CUYAH_000044598	CUYAH_000044926	CUYAH_000045174
CUYAH_000044600	CUYAH_000044932	CUYAH_000045207
CUYAH_000044602	CUYAH_000044938	CUYAH_000045214
CUYAH_000044607	CUYAH_000044957	CUYAH_000045217
CUYAH_000044609	CUYAH_000044960	CUYAH_000045233
CUYAH_000044614	CUYAH_000044962	CUYAH_000045234
CUYAH_000044617	CUYAH_000044964	CUYAH_000045238
CUYAH_000044619	CUYAH_000044967	CUYAH_000045244
CUYAH_000044626	CUYAH_000044972	CUYAH_000045249
CUYAH_000044635	CUYAH_000044974	CUYAH_000045251
CUYAH_000044641	CUYAH_000044976	CUYAH_000045260
CUYAH_000044674	CUYAH_000044978	CUYAH_000045270
CUYAH_000044678	CUYAH_000044979	CUYAH_000045272
CUYAH_000044684	CUYAH_000044981	CUYAH_000045274
CUYAH_000044686	CUYAH_000044988	CUYAH_000045276
CUYAH_000044688	CUYAH_000044992	CUYAH_000045278
CUYAH_000044695	CUYAH_000044996	CUYAH_000045279
CUYAH_000044701	CUYAH_000045003	CUYAH_000045280
CUYAH_000044703	CUYAH_000045028	CUYAH_000045286
CUYAH_000044720	CUYAH_000045031	CUYAH_000045290
CUYAH_000044725	CUYAH_000045034	CUYAH_000045291
CUYAH_000044727	CUYAH_000045038	CUYAH_000045293
CUYAH_000044733	CUYAH_000045041	CUYAH_000045297
CUYAH_000044737	CUYAH_000045043	CUYAH_000045301

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000045302	CUYAH_000045544	CUYAH_000045756
CUYAH_000045305	CUYAH_000045545	CUYAH_000045759
CUYAH_000045314	CUYAH_000045548	CUYAH_000045760
CUYAH_000045315	CUYAH_000045550	CUYAH_000045766
CUYAH_000045317	CUYAH_000045552	CUYAH_000045768
CUYAH_000045319	CUYAH_000045557	CUYAH_000045777
CUYAH_000045338	CUYAH_000045560	CUYAH_000045778
CUYAH_000045340	CUYAH_000045563	CUYAH_000045781
CUYAH_000045342	CUYAH_000045566	CUYAH_000045784
CUYAH_000045346	CUYAH_000045569	CUYAH_000045786
CUYAH_000045348	CUYAH_000045570	CUYAH_000045789
CUYAH_000045351	CUYAH_000045573	CUYAH_000045791
CUYAH_000045354	CUYAH_000045577	CUYAH_000045796
CUYAH_000045361	CUYAH_000045580	CUYAH_000045804
CUYAH_000045362	CUYAH_000045582	CUYAH_000045805
CUYAH_000045370	CUYAH_000045584	CUYAH_000045807
CUYAH_000045386	CUYAH_000045586	CUYAH_000045809
CUYAH_000045389	CUYAH_000045594	CUYAH_000045811
CUYAH_000045392	CUYAH_000045596	CUYAH_000045812
CUYAH_000045398	CUYAH_000045603	CUYAH_000045821
CUYAH_000045402	CUYAH_000045605	CUYAH_000045831
CUYAH_000045404	CUYAH_000045606	CUYAH_000045833
CUYAH_000045405	CUYAH_000045609	CUYAH_000045834
CUYAH_000045407	CUYAH_000045617	CUYAH_000045838
CUYAH_000045409	CUYAH_000045622	CUYAH_000045841
CUYAH_000045417	CUYAH_000045631	CUYAH_000045844
CUYAH_000045418	CUYAH_000045633	CUYAH_000045847
CUYAH_000045420	CUYAH_000045635	CUYAH_000045851
CUYAH_000045422	CUYAH_000045640	CUYAH_000045856
CUYAH_000045424	CUYAH_000045644	CUYAH_000045857
CUYAH_000045429	CUYAH_000045648	CUYAH_000045860
CUYAH_000045437	CUYAH_000045652	CUYAH_000045862
CUYAH_000045439	CUYAH_000045654	CUYAH_000045866
CUYAH_000045441	CUYAH_000045661	CUYAH_000045879
CUYAH_000045443	CUYAH_000045672	CUYAH_000045892
CUYAH_000045463	CUYAH_000045676	CUYAH_000045894
CUYAH_000045464	CUYAH_000045685	CUYAH_000045895
CUYAH_000045465	CUYAH_000045686	CUYAH_000045896
CUYAH_000045467	CUYAH_000045689	CUYAH_000045899
CUYAH_000045469	CUYAH_000045693	CUYAH_000045913
CUYAH_000045471	CUYAH_000045696	CUYAH_000045915
CUYAH_000045489	CUYAH_000045702	CUYAH_000045921
CUYAH_000045500	CUYAH_000045713	CUYAH_000045924
CUYAH_000045503	CUYAH_000045715	CUYAH_000045945
CUYAH_000045504	CUYAH_000045717	CUYAH_000045946
CUYAH_000045505	CUYAH_000045723	CUYAH_000045948
CUYAH_000045513	CUYAH_000045724	CUYAH_000045955
CUYAH_000045515	CUYAH_000045731	CUYAH_000045956
CUYAH_000045518	CUYAH_000045736	CUYAH_000045957
CUYAH_000045522	CUYAH_000045739	CUYAH_000045958
CUYAH_000045524	CUYAH_000045743	CUYAH_000045972
CUYAH_000045541	CUYAH_000045755	CUYAH_000045981

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000045992	CUYAH_000046302	CUYAH_000046526
CUYAH_000045995	CUYAH_000046305	CUYAH_000046528
CUYAH_000045996	CUYAH_000046312	CUYAH_000046529
CUYAH_000045998	CUYAH_000046313	CUYAH_000046530
CUYAH_000046006	CUYAH_000046314	CUYAH_000046532
CUYAH_000046012	CUYAH_000046316	CUYAH_000046533
CUYAH_000046021	CUYAH_000046319	CUYAH_000046535
CUYAH_000046028	CUYAH_000046325	CUYAH_000046540
CUYAH_000046030	CUYAH_000046328	CUYAH_000046542
CUYAH_000046032	CUYAH_000046329	CUYAH_000046543
CUYAH_000046034	CUYAH_000046335	CUYAH_000046547
CUYAH_000046035	CUYAH_000046338	CUYAH_000046549
CUYAH_000046036	CUYAH_000046340	CUYAH_000046551
CUYAH_000046041	CUYAH_000046342	CUYAH_000046565
CUYAH_000046043	CUYAH_000046344	CUYAH_000046566
CUYAH_000046049	CUYAH_000046363	CUYAH_000046574
CUYAH_000046051	CUYAH_000046374	CUYAH_000046578
CUYAH_000046058	CUYAH_000046376	CUYAH_000046581
CUYAH_000046068	CUYAH_000046378	CUYAH_000046586
CUYAH_000046069	CUYAH_000046380	CUYAH_000046607
CUYAH_000046072	CUYAH_000046381	CUYAH_000046608
CUYAH_000046080	CUYAH_000046383	CUYAH_000046609
CUYAH_000046092	CUYAH_000046390	CUYAH_000046612
CUYAH_000046097	CUYAH_000046391	CUYAH_000046616
CUYAH_000046101	CUYAH_000046393	CUYAH_000046622
CUYAH_000046112	CUYAH_000046395	CUYAH_000046627
CUYAH_000046121	CUYAH_000046399	CUYAH_000046628
CUYAH_000046122	CUYAH_000046400	CUYAH_000046630
CUYAH_000046129	CUYAH_000046421	CUYAH_000046636
CUYAH_000046135	CUYAH_000046432	CUYAH_000046638
CUYAH_000046146	CUYAH_000046436	CUYAH_000046641
CUYAH_000046162	CUYAH_000046441	CUYAH_000046643
CUYAH_000046197	CUYAH_000046443	CUYAH_000046647
CUYAH_000046208	CUYAH_000046447	CUYAH_000046648
CUYAH_000046227	CUYAH_000046449	CUYAH_000046650
CUYAH_000046235	CUYAH_000046459	CUYAH_000046662
CUYAH_000046245	CUYAH_000046460	CUYAH_000046665
CUYAH_000046253	CUYAH_000046464	CUYAH_000046672
CUYAH_000046257	CUYAH_000046467	CUYAH_000046673
CUYAH_000046259	CUYAH_000046468	CUYAH_000046686
CUYAH_000046262	CUYAH_000046476	CUYAH_000046687
CUYAH_000046264	CUYAH_000046481	CUYAH_000046688
CUYAH_000046265	CUYAH_000046483	CUYAH_000046693
CUYAH_000046266	CUYAH_000046486	CUYAH_000046697
CUYAH_000046272	CUYAH_000046499	CUYAH_000046702
CUYAH_000046276	CUYAH_000046506	CUYAH_000046704
CUYAH_000046278	CUYAH_000046508	CUYAH_000046710
CUYAH_000046285	CUYAH_000046510	CUYAH_000046712
CUYAH_000046291	CUYAH_000046512	CUYAH_000046714
CUYAH_000046292	CUYAH_000046519	CUYAH_000046723
CUYAH_000046299	CUYAH_000046520	CUYAH_000046724
CUYAH_000046301	CUYAH_000046522	CUYAH_000046727

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000046740	CUYAH_000046976	CUYAH_000047188
CUYAH_000046742	CUYAH_000046980	CUYAH_000047189
CUYAH_000046751	CUYAH_000046984	CUYAH_000047194
CUYAH_000046753	CUYAH_000046985	CUYAH_000047196
CUYAH_000046759	CUYAH_000046986	CUYAH_000047200
CUYAH_000046760	CUYAH_000046988	CUYAH_000047202
CUYAH_000046761	CUYAH_000046989	CUYAH_000047204
CUYAH_000046762	CUYAH_000046991	CUYAH_000047206
CUYAH_000046764	CUYAH_000046993	CUYAH_000047209
CUYAH_000046767	CUYAH_000047001	CUYAH_000047220
CUYAH_000046770	CUYAH_000047005	CUYAH_000047224
CUYAH_000046778	CUYAH_000047016	CUYAH_000047229
CUYAH_000046790	CUYAH_000047022	CUYAH_000047232
CUYAH_000046791	CUYAH_000047034	CUYAH_000047242
CUYAH_000046796	CUYAH_000047039	CUYAH_000047247
CUYAH_000046797	CUYAH_000047040	CUYAH_000047254
CUYAH_000046798	CUYAH_000047043	CUYAH_000047256
CUYAH_000046800	CUYAH_000047044	CUYAH_000047257
CUYAH_000046809	CUYAH_000047046	CUYAH_000047258
CUYAH_000046812	CUYAH_000047048	CUYAH_000047265
CUYAH_000046819	CUYAH_000047058	CUYAH_000047266
CUYAH_000046821	CUYAH_000047059	CUYAH_000047268
CUYAH_000046830	CUYAH_000047064	CUYAH_000047270
CUYAH_000046833	CUYAH_000047067	CUYAH_000047272
CUYAH_000046836	CUYAH_000047072	CUYAH_000047276
CUYAH_000046838	CUYAH_000047078	CUYAH_000047279
CUYAH_000046840	CUYAH_000047080	CUYAH_000047280
CUYAH_000046843	CUYAH_000047082	CUYAH_000047283
CUYAH_000046854	CUYAH_000047085	CUYAH_000047287
CUYAH_000046863	CUYAH_000047088	CUYAH_000047291
CUYAH_000046865	CUYAH_000047090	CUYAH_000047304
CUYAH_000046866	CUYAH_000047091	CUYAH_000047305
CUYAH_000046867	CUYAH_000047092	CUYAH_000047306
CUYAH_000046869	CUYAH_000047099	CUYAH_000047308
CUYAH_000046870	CUYAH_000047102	CUYAH_000047313
CUYAH_000046872	CUYAH_000047109	CUYAH_000047315
CUYAH_000046878	CUYAH_000047111	CUYAH_000047317
CUYAH_000046879	CUYAH_000047114	CUYAH_000047320
CUYAH_000046883	CUYAH_000047115	CUYAH_000047321
CUYAH_000046887	CUYAH_000047121	CUYAH_000047334
CUYAH_000046895	CUYAH_000047125	CUYAH_000047337
CUYAH_000046916	CUYAH_000047136	CUYAH_000047342
CUYAH_000046925	CUYAH_000047138	CUYAH_000047343
CUYAH_000046929	CUYAH_000047146	CUYAH_000047345
CUYAH_000046930	CUYAH_000047154	CUYAH_000047348
CUYAH_000046942	CUYAH_000047156	CUYAH_000047352
CUYAH_000046947	CUYAH_000047158	CUYAH_000047354
CUYAH_000046949	CUYAH_000047165	CUYAH_000047356
CUYAH_000046952	CUYAH_000047170	CUYAH_000047358
CUYAH_000046955	CUYAH_000047173	CUYAH_000047361
CUYAH_000046961	CUYAH_000047174	CUYAH_000047362
CUYAH_000046968	CUYAH_000047184	CUYAH_000047364

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000047370	CUYAH_000047594	CUYAH_000047928
CUYAH_000047374	CUYAH_000047598	CUYAH_000047931
CUYAH_000047379	CUYAH_000047602	CUYAH_000047934
CUYAH_000047382	CUYAH_000047603	CUYAH_000047941
CUYAH_000047384	CUYAH_000047604	CUYAH_000047946
CUYAH_000047386	CUYAH_000047610	CUYAH_000047948
CUYAH_000047389	CUYAH_000047633	CUYAH_000047950
CUYAH_000047390	CUYAH_000047637	CUYAH_000047952
CUYAH_000047392	CUYAH_000047639	CUYAH_000047953
CUYAH_000047394	CUYAH_000047657	CUYAH_000047960
CUYAH_000047403	CUYAH_000047659	CUYAH_000047961
CUYAH_000047405	CUYAH_000047660	CUYAH_000047963
CUYAH_000047413	CUYAH_000047665	CUYAH_000047966
CUYAH_000047416	CUYAH_000047668	CUYAH_000047971
CUYAH_000047421	CUYAH_000047670	CUYAH_000047973
CUYAH_000047424	CUYAH_000047672	CUYAH_000047979
CUYAH_000047425	CUYAH_000047681	CUYAH_000047987
CUYAH_000047426	CUYAH_000047693	CUYAH_000047990
CUYAH_000047427	CUYAH_000047694	CUYAH_000047992
CUYAH_000047431	CUYAH_000047695	CUYAH_000047995
CUYAH_000047435	CUYAH_000047697	CUYAH_000047996
CUYAH_000047440	CUYAH_000047699	CUYAH_000047998
CUYAH_000047460	CUYAH_000047704	CUYAH_000048000
CUYAH_000047461	CUYAH_000047707	CUYAH_000048002
CUYAH_000047468	CUYAH_000047709	CUYAH_000048006
CUYAH_000047469	CUYAH_000047714	CUYAH_000048011
CUYAH_000047471	CUYAH_000047718	CUYAH_000048013
CUYAH_000047474	CUYAH_000047721	CUYAH_000048014
CUYAH_000047481	CUYAH_000047722	CUYAH_000048015
CUYAH_000047497	CUYAH_000047724	CUYAH_000048016
CUYAH_000047512	CUYAH_000047727	CUYAH_000048024
CUYAH_000047514	CUYAH_000047732	CUYAH_000048028
CUYAH_000047515	CUYAH_000047737	CUYAH_000048029
CUYAH_000047518	CUYAH_000047743	CUYAH_000048031
CUYAH_000047522	CUYAH_000047758	CUYAH_000048035
CUYAH_000047535	CUYAH_000047770	CUYAH_000048036
CUYAH_000047537	CUYAH_000047773	CUYAH_000048038
CUYAH_000047539	CUYAH_000047780	CUYAH_000048039
CUYAH_000047543	CUYAH_000047783	CUYAH_000048043
CUYAH_000047546	CUYAH_000047796	CUYAH_000048048
CUYAH_000047549	CUYAH_000047816	CUYAH_000048053
CUYAH_000047552	CUYAH_000047835	CUYAH_000048055
CUYAH_000047555	CUYAH_000047840	CUYAH_000048057
CUYAH_000047560	CUYAH_000047850	CUYAH_000048062
CUYAH_000047561	CUYAH_000047852	CUYAH_000048063
CUYAH_000047568	CUYAH_000047857	CUYAH_000048071
CUYAH_000047573	CUYAH_000047860	CUYAH_000048073
CUYAH_000047577	CUYAH_000047865	CUYAH_000048081
CUYAH_000047578	CUYAH_000047867	CUYAH_000048083
CUYAH_000047582	CUYAH_000047869	CUYAH_000048086
CUYAH_000047584	CUYAH_000047924	CUYAH_000048090
CUYAH_000047586	CUYAH_000047926	CUYAH_000048095

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000048097	CUYAH_000048295	CUYAH_000048514
CUYAH_000048101	CUYAH_000048297	CUYAH_000048519
CUYAH_000048106	CUYAH_000048299	CUYAH_000048522
CUYAH_000048107	CUYAH_000048302	CUYAH_000048528
CUYAH_000048124	CUYAH_000048306	CUYAH_000048531
CUYAH_000048129	CUYAH_000048316	CUYAH_000048535
CUYAH_000048131	CUYAH_000048322	CUYAH_000048541
CUYAH_000048133	CUYAH_000048323	CUYAH_000048542
CUYAH_000048139	CUYAH_000048325	CUYAH_000048543
CUYAH_000048140	CUYAH_000048330	CUYAH_000048544
CUYAH_000048144	CUYAH_000048347	CUYAH_000048547
CUYAH_000048150	CUYAH_000048348	CUYAH_000048552
CUYAH_000048155	CUYAH_000048350	CUYAH_000048558
CUYAH_000048157	CUYAH_000048352	CUYAH_000048560
CUYAH_000048164	CUYAH_000048354	CUYAH_000048564
CUYAH_000048166	CUYAH_000048358	CUYAH_000048566
CUYAH_000048167	CUYAH_000048361	CUYAH_000048567
CUYAH_000048170	CUYAH_000048369	CUYAH_000048571
CUYAH_000048171	CUYAH_000048379	CUYAH_000048572
CUYAH_000048172	CUYAH_000048380	CUYAH_000048574
CUYAH_000048180	CUYAH_000048381	CUYAH_000048575
CUYAH_000048190	CUYAH_000048384	CUYAH_000048581
CUYAH_000048192	CUYAH_000048394	CUYAH_000048583
CUYAH_000048199	CUYAH_000048399	CUYAH_000048597
CUYAH_000048201	CUYAH_000048406	CUYAH_000048600
CUYAH_000048202	CUYAH_000048412	CUYAH_000048601
CUYAH_000048204	CUYAH_000048420	CUYAH_000048604
CUYAH_000048210	CUYAH_000048430	CUYAH_000048614
CUYAH_000048213	CUYAH_000048433	CUYAH_000048620
CUYAH_000048215	CUYAH_000048435	CUYAH_000048625
CUYAH_000048224	CUYAH_000048437	CUYAH_000048627
CUYAH_000048226	CUYAH_000048439	CUYAH_000048640
CUYAH_000048234	CUYAH_000048449	CUYAH_000048650
CUYAH_000048237	CUYAH_000048460	CUYAH_000048663
CUYAH_000048240	CUYAH_000048470	CUYAH_000048674
CUYAH_000048243	CUYAH_000048476	CUYAH_000048675
CUYAH_000048245	CUYAH_000048477	CUYAH_000048677
CUYAH_000048247	CUYAH_000048478	CUYAH_000048679
CUYAH_000048249	CUYAH_000048481	CUYAH_000048682
CUYAH_000048254	CUYAH_000048482	CUYAH_000048684
CUYAH_000048255	CUYAH_000048484	CUYAH_000048686
CUYAH_000048273	CUYAH_000048488	CUYAH_000048689
CUYAH_000048274	CUYAH_000048490	CUYAH_000048693
CUYAH_000048276	CUYAH_000048494	CUYAH_000048695
CUYAH_000048279	CUYAH_000048496	CUYAH_000048697
CUYAH_000048280	CUYAH_000048498	CUYAH_000048701
CUYAH_000048282	CUYAH_000048499	CUYAH_000048703
CUYAH_000048284	CUYAH_000048504	CUYAH_000048705
CUYAH_000048286	CUYAH_000048505	CUYAH_000048707
CUYAH_000048289	CUYAH_000048510	CUYAH_000048721
CUYAH_000048291	CUYAH_000048512	CUYAH_000048727
CUYAH_000048293	CUYAH_000048513	CUYAH_000048728

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000048735	CUYAH_000048948	CUYAH_000049125
CUYAH_000048737	CUYAH_000048949	CUYAH_000049130
CUYAH_000048742	CUYAH_000048955	CUYAH_000049131
CUYAH_000048751	CUYAH_000048957	CUYAH_000049132
CUYAH_000048752	CUYAH_000048959	CUYAH_000049134
CUYAH_000048760	CUYAH_000048964	CUYAH_000049139
CUYAH_000048762	CUYAH_000048966	CUYAH_000049141
CUYAH_000048765	CUYAH_000048969	CUYAH_000049142
CUYAH_000048767	CUYAH_000048974	CUYAH_000049146
CUYAH_000048769	CUYAH_000048976	CUYAH_000049147
CUYAH_000048775	CUYAH_000048978	CUYAH_000049151
CUYAH_000048776	CUYAH_000048981	CUYAH_000049153
CUYAH_000048781	CUYAH_000048985	CUYAH_000049156
CUYAH_000048784	CUYAH_000048991	CUYAH_000049164
CUYAH_000048789	CUYAH_000048993	CUYAH_000049165
CUYAH_000048791	CUYAH_000048997	CUYAH_000049167
CUYAH_000048797	CUYAH_000048999	CUYAH_000049169
CUYAH_000048798	CUYAH_000049001	CUYAH_000049172
CUYAH_000048801	CUYAH_000049002	CUYAH_000049173
CUYAH_000048803	CUYAH_000049003	CUYAH_000049174
CUYAH_000048805	CUYAH_000049005	CUYAH_000049183
CUYAH_000048807	CUYAH_000049007	CUYAH_000049189
CUYAH_000048808	CUYAH_000049009	CUYAH_000049191
CUYAH_000048814	CUYAH_000049011	CUYAH_000049193
CUYAH_000048817	CUYAH_000049018	CUYAH_000049198
CUYAH_000048820	CUYAH_000049028	CUYAH_000049199
CUYAH_000048823	CUYAH_000049031	CUYAH_000049203
CUYAH_000048826	CUYAH_000049033	CUYAH_000049206
CUYAH_000048841	CUYAH_000049034	CUYAH_000049216
CUYAH_000048842	CUYAH_000049036	CUYAH_000049222
CUYAH_000048851	CUYAH_000049043	CUYAH_000049224
CUYAH_000048852	CUYAH_000049049	CUYAH_000049230
CUYAH_000048860	CUYAH_000049051	CUYAH_000049236
CUYAH_000048866	CUYAH_000049057	CUYAH_000049239
CUYAH_000048868	CUYAH_000049058	CUYAH_000049245
CUYAH_000048876	CUYAH_000049061	CUYAH_000049247
CUYAH_000048878	CUYAH_000049063	CUYAH_000049252
CUYAH_000048882	CUYAH_000049070	CUYAH_000049255
CUYAH_000048883	CUYAH_000049074	CUYAH_000049258
CUYAH_000048889	CUYAH_000049080	CUYAH_000049265
CUYAH_000048898	CUYAH_000049086	CUYAH_000049269
CUYAH_000048903	CUYAH_000049087	CUYAH_000049271
CUYAH_000048905	CUYAH_000049088	CUYAH_000049273
CUYAH_000048907	CUYAH_000049092	CUYAH_000049275
CUYAH_000048913	CUYAH_000049096	CUYAH_000049277
CUYAH_000048915	CUYAH_000049102	CUYAH_000049279
CUYAH_000048918	CUYAH_000049104	CUYAH_000049281
CUYAH_000048923	CUYAH_000049105	CUYAH_000049283
CUYAH_000048924	CUYAH_000049111	CUYAH_000049284
CUYAH_000048925	CUYAH_000049117	CUYAH_000049285
CUYAH_000048938	CUYAH_000049119	CUYAH_000049286
CUYAH_000048942	CUYAH_000049120	CUYAH_000049294

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000049298	CUYAH_000049496	CUYAH_000049651
CUYAH_000049304	CUYAH_000049498	CUYAH_000049655
CUYAH_000049305	CUYAH_000049500	CUYAH_000049660
CUYAH_000049307	CUYAH_000049501	CUYAH_000049661
CUYAH_000049314	CUYAH_000049505	CUYAH_000049664
CUYAH_000049318	CUYAH_000049506	CUYAH_000049666
CUYAH_000049322	CUYAH_000049507	CUYAH_000049667
CUYAH_000049329	CUYAH_000049511	CUYAH_000049672
CUYAH_000049334	CUYAH_000049515	CUYAH_000049673
CUYAH_000049339	CUYAH_000049517	CUYAH_000049675
CUYAH_000049343	CUYAH_000049523	CUYAH_000049680
CUYAH_000049348	CUYAH_000049524	CUYAH_000049687
CUYAH_000049350	CUYAH_000049528	CUYAH_000049689
CUYAH_000049352	CUYAH_000049529	CUYAH_000049691
CUYAH_000049354	CUYAH_000049530	CUYAH_000049693
CUYAH_000049356	CUYAH_000049532	CUYAH_000049695
CUYAH_000049358	CUYAH_000049537	CUYAH_000049697
CUYAH_000049363	CUYAH_000049538	CUYAH_000049700
CUYAH_000049364	CUYAH_000049539	CUYAH_000049702
CUYAH_000049377	CUYAH_000049542	CUYAH_000049703
CUYAH_000049383	CUYAH_000049544	CUYAH_000049707
CUYAH_000049384	CUYAH_000049547	CUYAH_000049708
CUYAH_000049386	CUYAH_000049548	CUYAH_000049709
CUYAH_000049392	CUYAH_000049550	CUYAH_000049721
CUYAH_000049411	CUYAH_000049551	CUYAH_000049723
CUYAH_000049413	CUYAH_000049563	CUYAH_000049725
CUYAH_000049415	CUYAH_000049565	CUYAH_000049734
CUYAH_000049417	CUYAH_000049567	CUYAH_000049736
CUYAH_000049419	CUYAH_000049569	CUYAH_000049738
CUYAH_000049421	CUYAH_000049573	CUYAH_000049748
CUYAH_000049422	CUYAH_000049575	CUYAH_000049749
CUYAH_000049425	CUYAH_000049578	CUYAH_000049750
CUYAH_000049426	CUYAH_000049584	CUYAH_000049754
CUYAH_000049427	CUYAH_000049585	CUYAH_000049756
CUYAH_000049437	CUYAH_000049587	CUYAH_000049758
CUYAH_000049438	CUYAH_000049590	CUYAH_000049761
CUYAH_000049440	CUYAH_000049591	CUYAH_000049763
CUYAH_000049447	CUYAH_000049593	CUYAH_000049764
CUYAH_000049449	CUYAH_000049596	CUYAH_000049766
CUYAH_000049455	CUYAH_000049602	CUYAH_000049770
CUYAH_000049465	CUYAH_000049607	CUYAH_000049777
CUYAH_000049472	CUYAH_000049609	CUYAH_000049781
CUYAH_000049474	CUYAH_000049612	CUYAH_000049783
CUYAH_000049475	CUYAH_000049614	CUYAH_000049785
CUYAH_000049477	CUYAH_000049621	CUYAH_000049787
CUYAH_000049480	CUYAH_000049623	CUYAH_000049795
CUYAH_000049481	CUYAH_000049624	CUYAH_000049796
CUYAH_000049482	CUYAH_000049626	CUYAH_000049805
CUYAH_000049484	CUYAH_000049641	CUYAH_000049808
CUYAH_000049490	CUYAH_000049644	CUYAH_000049826
CUYAH_000049492	CUYAH_000049646	CUYAH_000049835
CUYAH_000049494	CUYAH_000049647	CUYAH_000049837

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000049839	CUYAH_000050023	CUYAH_000050195
CUYAH_000049840	CUYAH_000050024	CUYAH_000050200
CUYAH_000049849	CUYAH_000050025	CUYAH_000050201
CUYAH_000049862	CUYAH_000050040	CUYAH_000050202
CUYAH_000049870	CUYAH_000050047	CUYAH_000050203
CUYAH_000049871	CUYAH_000050055	CUYAH_000050205
CUYAH_000049873	CUYAH_000050056	CUYAH_000050206
CUYAH_000049875	CUYAH_000050057	CUYAH_000050208
CUYAH_000049878	CUYAH_000050058	CUYAH_000050214
CUYAH_000049879	CUYAH_000050059	CUYAH_000050215
CUYAH_000049880	CUYAH_000050060	CUYAH_000050221
CUYAH_000049884	CUYAH_000050061	CUYAH_000050229
CUYAH_000049885	CUYAH_000050066	CUYAH_000050230
CUYAH_000049886	CUYAH_000050074	CUYAH_000050231
CUYAH_000049887	CUYAH_000050075	CUYAH_000050232
CUYAH_000049889	CUYAH_000050079	CUYAH_000050240
CUYAH_000049890	CUYAH_000050091	CUYAH_000050247
CUYAH_000049895	CUYAH_000050103	CUYAH_000050255
CUYAH_000049896	CUYAH_000050106	CUYAH_000050282
CUYAH_000049897	CUYAH_000050107	CUYAH_000050286
CUYAH_000049901	CUYAH_000050108	CUYAH_000050287
CUYAH_000049902	CUYAH_000050109	CUYAH_000050288
CUYAH_000049905	CUYAH_000050110	CUYAH_000050291
CUYAH_000049909	CUYAH_000050118	CUYAH_000050304
CUYAH_000049910	CUYAH_000050120	CUYAH_000050305
CUYAH_000049911	CUYAH_000050121	CUYAH_000050307
CUYAH_000049913	CUYAH_000050124	CUYAH_000050308
CUYAH_000049918	CUYAH_000050129	CUYAH_000050310
CUYAH_000049919	CUYAH_000050131	CUYAH_000050316
CUYAH_000049920	CUYAH_000050134	CUYAH_000050317
CUYAH_000049921	CUYAH_000050138	CUYAH_000050321
CUYAH_000049923	CUYAH_000050141	CUYAH_000050322
CUYAH_000049926	CUYAH_000050143	CUYAH_000050324
CUYAH_000049929	CUYAH_000050144	CUYAH_000050325
CUYAH_000049934	CUYAH_000050145	CUYAH_000050326
CUYAH_000049941	CUYAH_000050147	CUYAH_000050327
CUYAH_000049954	CUYAH_000050149	CUYAH_000050333
CUYAH_000049970	CUYAH_000050150	CUYAH_000050343
CUYAH_000049971	CUYAH_000050151	CUYAH_000050351
CUYAH_000049972	CUYAH_000050153	CUYAH_000050367
CUYAH_000049974	CUYAH_000050163	CUYAH_000050369
CUYAH_000049977	CUYAH_000050164	CUYAH_000050370
CUYAH_000049987	CUYAH_000050165	CUYAH_000050378
CUYAH_000049988	CUYAH_000050166	CUYAH_000050380
CUYAH_000049989	CUYAH_000050172	CUYAH_000050383
CUYAH_000049993	CUYAH_000050173	CUYAH_000050384
CUYAH_000049995	CUYAH_000050174	CUYAH_000050385
CUYAH_000049996	CUYAH_000050175	CUYAH_000050387
CUYAH_000049997	CUYAH_000050178	CUYAH_000050389
CUYAH_000050000	CUYAH_000050179	CUYAH_000050405
CUYAH_000050016	CUYAH_000050183	CUYAH_000050409
CUYAH_000050017	CUYAH_000050188	CUYAH_000050420

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000050421	CUYAH_000050614	CUYAH_000051048
CUYAH_000050425	CUYAH_000050619	CUYAH_000051058
CUYAH_000050432	CUYAH_000050621	CUYAH_000051063
CUYAH_000050434	CUYAH_000050624	CUYAH_000051066
CUYAH_000050436	CUYAH_000050625	CUYAH_000051068
CUYAH_000050437	CUYAH_000050631	CUYAH_000051071
CUYAH_000050438	CUYAH_000050633	CUYAH_000051086
CUYAH_000050439	CUYAH_000050635	CUYAH_000051092
CUYAH_000050440	CUYAH_000050641	CUYAH_000051100
CUYAH_000050443	CUYAH_000050643	CUYAH_000051121
CUYAH_000050444	CUYAH_000050646	CUYAH_000051123
CUYAH_000050445	CUYAH_000050648	CUYAH_000051143
CUYAH_000050446	CUYAH_000050651	CUYAH_000051159
CUYAH_000050447	CUYAH_000050654	CUYAH_000051172
CUYAH_000050455	CUYAH_000050657	CUYAH_000051173
CUYAH_000050456	CUYAH_000050667	CUYAH_000051180
CUYAH_000050457	CUYAH_000050676	CUYAH_000051182
CUYAH_000050458	CUYAH_000050690	CUYAH_000051188
CUYAH_000050459	CUYAH_000050691	CUYAH_000051189
CUYAH_000050460	CUYAH_000050698	CUYAH_000051191
CUYAH_000050461	CUYAH_000050701	CUYAH_000051198
CUYAH_000050467	CUYAH_000050702	CUYAH_000051199
CUYAH_000050468	CUYAH_000050708	CUYAH_000051200
CUYAH_000050474	CUYAH_000050719	CUYAH_000051201
CUYAH_000050476	CUYAH_000050727	CUYAH_000051202
CUYAH_000050480	CUYAH_000050735	CUYAH_000051208
CUYAH_000050481	CUYAH_000050739	CUYAH_000051212
CUYAH_000050487	CUYAH_000050742	CUYAH_000051213
CUYAH_000050488	CUYAH_000050743	CUYAH_000051215
CUYAH_000050503	CUYAH_000050756	CUYAH_000051217
CUYAH_000050506	CUYAH_000050758	CUYAH_000051218
CUYAH_000050512	CUYAH_000050760	CUYAH_000051220
CUYAH_000050515	CUYAH_000050767	CUYAH_000051221
CUYAH_000050526	CUYAH_000050768	CUYAH_000051226
CUYAH_000050527	CUYAH_000050776	CUYAH_000051228
CUYAH_000050529	CUYAH_000050784	CUYAH_000051229
CUYAH_000050540	CUYAH_000050797	CUYAH_000051242
CUYAH_000050548	CUYAH_000050818	CUYAH_000051245
CUYAH_000050556	CUYAH_000050839	CUYAH_000051247
CUYAH_000050561	CUYAH_000050845	CUYAH_000051250
CUYAH_000050562	CUYAH_000050872	CUYAH_000051251
CUYAH_000050563	CUYAH_000050899	CUYAH_000051252
CUYAH_000050567	CUYAH_000050926	CUYAH_000051253
CUYAH_000050568	CUYAH_000050953	CUYAH_000051254
CUYAH_000050569	CUYAH_000050957	CUYAH_000051256
CUYAH_000050573	CUYAH_000050971	CUYAH_000051259
CUYAH_000050574	CUYAH_000050985	CUYAH_000051260
CUYAH_000050575	CUYAH_000050999	CUYAH_000051262
CUYAH_000050576	CUYAH_000051013	CUYAH_000051265
CUYAH_000050580	CUYAH_000051028	CUYAH_000051266
CUYAH_000050582	CUYAH_000051042	CUYAH_000051268
CUYAH_000050601	CUYAH_000051047	CUYAH_000051273

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000051278	CUYAH_000051548	CUYAH_000051725
CUYAH_000051288	CUYAH_000051549	CUYAH_000051726
CUYAH_000051290	CUYAH_000051551	CUYAH_000051737
CUYAH_000051291	CUYAH_000051556	CUYAH_000051743
CUYAH_000051326	CUYAH_000051557	CUYAH_000051753
CUYAH_000051331	CUYAH_000051560	CUYAH_000051758
CUYAH_000051339	CUYAH_000051569	CUYAH_000051760
CUYAH_000051344	CUYAH_000051571	CUYAH_000051761
CUYAH_000051347	CUYAH_000051575	CUYAH_000051784
CUYAH_000051357	CUYAH_000051578	CUYAH_000051790
CUYAH_000051359	CUYAH_000051579	CUYAH_000051791
CUYAH_000051368	CUYAH_000051580	CUYAH_000051795
CUYAH_000051369	CUYAH_000051584	CUYAH_000051796
CUYAH_000051370	CUYAH_000051593	CUYAH_000051801
CUYAH_000051374	CUYAH_000051599	CUYAH_000051802
CUYAH_000051377	CUYAH_000051600	CUYAH_000051804
CUYAH_000051378	CUYAH_000051601	CUYAH_000051816
CUYAH_000051386	CUYAH_000051602	CUYAH_000051817
CUYAH_000051389	CUYAH_000051604	CUYAH_000051819
CUYAH_000051410	CUYAH_000051613	CUYAH_000051833
CUYAH_000051412	CUYAH_000051615	CUYAH_000051836
CUYAH_000051417	CUYAH_000051616	CUYAH_000051847
CUYAH_000051418	CUYAH_000051617	CUYAH_000051849
CUYAH_000051419	CUYAH_000051620	CUYAH_000051850
CUYAH_000051421	CUYAH_000051624	CUYAH_000051852
CUYAH_000051422	CUYAH_000051628	CUYAH_000051853
CUYAH_000051424	CUYAH_000051632	CUYAH_000051860
CUYAH_000051427	CUYAH_000051633	CUYAH_000051861
CUYAH_000051429	CUYAH_000051637	CUYAH_000051867
CUYAH_000051430	CUYAH_000051642	CUYAH_000051875
CUYAH_000051432	CUYAH_000051653	CUYAH_000051877
CUYAH_000051433	CUYAH_000051661	CUYAH_000051880
CUYAH_000051434	CUYAH_000051662	CUYAH_000051887
CUYAH_000051435	CUYAH_000051663	CUYAH_000051888
CUYAH_000051437	CUYAH_000051667	CUYAH_000051900
CUYAH_000051438	CUYAH_000051668	CUYAH_000051901
CUYAH_000051455	CUYAH_000051672	CUYAH_000051902
CUYAH_000051456	CUYAH_000051675	CUYAH_000051906
CUYAH_000051460	CUYAH_000051677	CUYAH_000051908
CUYAH_000051471	CUYAH_000051678	CUYAH_000051910
CUYAH_000051476	CUYAH_000051680	CUYAH_000051913
CUYAH_000051477	CUYAH_000051682	CUYAH_000051918
CUYAH_000051481	CUYAH_000051683	CUYAH_000051919
CUYAH_000051524	CUYAH_000051684	CUYAH_000051920
CUYAH_000051525	CUYAH_000051690	CUYAH_000051924
CUYAH_000051526	CUYAH_000051693	CUYAH_000051925
CUYAH_000051530	CUYAH_000051694	CUYAH_000051936
CUYAH_000051531	CUYAH_000051695	CUYAH_000051942
CUYAH_000051536	CUYAH_000051708	CUYAH_000051943
CUYAH_000051542	CUYAH_000051715	CUYAH_000051944
CUYAH_000051543	CUYAH_000051717	CUYAH_000051945
CUYAH_000051544	CUYAH_000051718	CUYAH_000051947

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000051949	CUYAH_000052102	CUYAH_000052308
CUYAH_000051950	CUYAH_000052103	CUYAH_000052313
CUYAH_000051956	CUYAH_000052105	CUYAH_000052319
CUYAH_000051958	CUYAH_000052117	CUYAH_000052325
CUYAH_000051960	CUYAH_000052118	CUYAH_000052327
CUYAH_000051962	CUYAH_000052128	CUYAH_000052328
CUYAH_000051963	CUYAH_000052129	CUYAH_000052329
CUYAH_000051964	CUYAH_000052137	CUYAH_000052330
CUYAH_000051965	CUYAH_000052140	CUYAH_000052331
CUYAH_000051971	CUYAH_000052142	CUYAH_000052332
CUYAH_000051972	CUYAH_000052143	CUYAH_000052335
CUYAH_000051974	CUYAH_000052144	CUYAH_000052339
CUYAH_000051976	CUYAH_000052145	CUYAH_000052345
CUYAH_000051977	CUYAH_000052146	CUYAH_000052350
CUYAH_000051982	CUYAH_000052147	CUYAH_000052351
CUYAH_000051983	CUYAH_000052148	CUYAH_000052357
CUYAH_000051992	CUYAH_000052152	CUYAH_000052360
CUYAH_000051995	CUYAH_000052153	CUYAH_000052371
CUYAH_000052004	CUYAH_000052154	CUYAH_000052373
CUYAH_000052007	CUYAH_000052157	CUYAH_000052378
CUYAH_000052017	CUYAH_000052162	CUYAH_000052381
CUYAH_000052020	CUYAH_000052163	CUYAH_000052384
CUYAH_000052021	CUYAH_000052167	CUYAH_000052385
CUYAH_000052024	CUYAH_000052168	CUYAH_000052389
CUYAH_000052031	CUYAH_000052169	CUYAH_000052395
CUYAH_000052032	CUYAH_000052170	CUYAH_000052396
CUYAH_000052034	CUYAH_000052176	CUYAH_000052401
CUYAH_000052035	CUYAH_000052183	CUYAH_000052403
CUYAH_000052042	CUYAH_000052199	CUYAH_000052404
CUYAH_000052043	CUYAH_000052206	CUYAH_000052405
CUYAH_000052044	CUYAH_000052207	CUYAH_000052407
CUYAH_000052045	CUYAH_000052213	CUYAH_000052409
CUYAH_000052046	CUYAH_000052215	CUYAH_000052410
CUYAH_000052047	CUYAH_000052220	CUYAH_000052425
CUYAH_000052051	CUYAH_000052221	CUYAH_000052432
CUYAH_000052053	CUYAH_000052226	CUYAH_000052438
CUYAH_000052057	CUYAH_000052235	CUYAH_000052440
CUYAH_000052059	CUYAH_000052243	CUYAH_000052453
CUYAH_000052060	CUYAH_000052244	CUYAH_000052454
CUYAH_000052064	CUYAH_000052257	CUYAH_000052459
CUYAH_000052065	CUYAH_000052261	CUYAH_000052471
CUYAH_000052069	CUYAH_000052263	CUYAH_000052472
CUYAH_000052072	CUYAH_000052267	CUYAH_000052473
CUYAH_000052073	CUYAH_000052274	CUYAH_000052474
CUYAH_000052079	CUYAH_000052276	CUYAH_000052475
CUYAH_000052086	CUYAH_000052278	CUYAH_000052476
CUYAH_000052090	CUYAH_000052279	CUYAH_000052481
CUYAH_000052091	CUYAH_000052280	CUYAH_000052483
CUYAH_000052092	CUYAH_000052283	CUYAH_000052488
CUYAH_000052093	CUYAH_000052297	CUYAH_000052499
CUYAH_000052094	CUYAH_000052298	CUYAH_000052500
CUYAH_000052100	CUYAH_000052305	CUYAH_000052503

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000052508	CUYAH_000052702	CUYAH_000052865
CUYAH_000052509	CUYAH_000052703	CUYAH_000052869
CUYAH_000052537	CUYAH_000052704	CUYAH_000052870
CUYAH_000052543	CUYAH_000052705	CUYAH_000052874
CUYAH_000052544	CUYAH_000052706	CUYAH_000052875
CUYAH_000052545	CUYAH_000052709	CUYAH_000052880
CUYAH_000052546	CUYAH_000052710	CUYAH_000052886
CUYAH_000052547	CUYAH_000052716	CUYAH_000052887
CUYAH_000052559	CUYAH_000052717	CUYAH_000052888
CUYAH_000052560	CUYAH_000052718	CUYAH_000052891
CUYAH_000052565	CUYAH_000052719	CUYAH_000052893
CUYAH_000052569	CUYAH_000052721	CUYAH_000052901
CUYAH_000052576	CUYAH_000052723	CUYAH_000052902
CUYAH_000052577	CUYAH_000052725	CUYAH_000052903
CUYAH_000052578	CUYAH_000052729	CUYAH_000052905
CUYAH_000052579	CUYAH_000052731	CUYAH_000052906
CUYAH_000052586	CUYAH_000052733	CUYAH_000052908
CUYAH_000052589	CUYAH_000052734	CUYAH_000052909
CUYAH_000052595	CUYAH_000052743	CUYAH_000052915
CUYAH_000052604	CUYAH_000052751	CUYAH_000052921
CUYAH_000052605	CUYAH_000052752	CUYAH_000052922
CUYAH_000052606	CUYAH_000052753	CUYAH_000052923
CUYAH_000052610	CUYAH_000052754	CUYAH_000052927
CUYAH_000052629	CUYAH_000052759	CUYAH_000052929
CUYAH_000052630	CUYAH_000052764	CUYAH_000052935
CUYAH_000052634	CUYAH_000052775	CUYAH_000052941
CUYAH_000052635	CUYAH_000052780	CUYAH_000052945
CUYAH_000052636	CUYAH_000052783	CUYAH_000052951
CUYAH_000052637	CUYAH_000052787	CUYAH_000052958
CUYAH_000052643	CUYAH_000052791	CUYAH_000052959
CUYAH_000052646	CUYAH_000052792	CUYAH_000052961
CUYAH_000052648	CUYAH_000052793	CUYAH_000052973
CUYAH_000052649	CUYAH_000052794	CUYAH_000052982
CUYAH_000052661	CUYAH_000052795	CUYAH_000052983
CUYAH_000052664	CUYAH_000052796	CUYAH_000052984
CUYAH_000052668	CUYAH_000052801	CUYAH_000052985
CUYAH_000052671	CUYAH_000052803	CUYAH_000052986
CUYAH_000052672	CUYAH_000052804	CUYAH_000052987
CUYAH_000052673	CUYAH_000052805	CUYAH_000052990
CUYAH_000052675	CUYAH_000052807	CUYAH_000052991
CUYAH_000052676	CUYAH_000052820	CUYAH_000052997
CUYAH_000052677	CUYAH_000052832	CUYAH_000052998
CUYAH_000052678	CUYAH_000052834	CUYAH_000052999
CUYAH_000052679	CUYAH_000052836	CUYAH_000053000
CUYAH_000052681	CUYAH_000052837	CUYAH_000053006
CUYAH_000052683	CUYAH_000052839	CUYAH_000053012
CUYAH_000052686	CUYAH_000052840	CUYAH_000053021
CUYAH_000052688	CUYAH_000052842	CUYAH_000053025
CUYAH_000052689	CUYAH_000052849	CUYAH_000053026
CUYAH_000052691	CUYAH_000052856	CUYAH_000053032
CUYAH_000052693	CUYAH_000052862	CUYAH_000053033
CUYAH_000052696	CUYAH_000052863	CUYAH_000053034

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000053039	CUYAH_000053231	CUYAH_000053483
CUYAH_000053042	CUYAH_000053238	CUYAH_000053484
CUYAH_000053043	CUYAH_000053247	CUYAH_000053487
CUYAH_000053047	CUYAH_000053252	CUYAH_000053488
CUYAH_000053048	CUYAH_000053282	CUYAH_000053491
CUYAH_000053052	CUYAH_000053283	CUYAH_000053492
CUYAH_000053053	CUYAH_000053286	CUYAH_000053495
CUYAH_000053058	CUYAH_000053289	CUYAH_000053496
CUYAH_000053060	CUYAH_000053290	CUYAH_000053497
CUYAH_000053062	CUYAH_000053295	CUYAH_000053498
CUYAH_000053064	CUYAH_000053298	CUYAH_000053503
CUYAH_000053066	CUYAH_000053299	CUYAH_000053506
CUYAH_000053071	CUYAH_000053309	CUYAH_000053507
CUYAH_000053072	CUYAH_000053310	CUYAH_000053513
CUYAH_000053073	CUYAH_000053311	CUYAH_000053520
CUYAH_000053074	CUYAH_000053350	CUYAH_000053521
CUYAH_000053075	CUYAH_000053352	CUYAH_000053522
CUYAH_000053085	CUYAH_000053375	CUYAH_000053525
CUYAH_000053092	CUYAH_000053378	CUYAH_000053527
CUYAH_000053103	CUYAH_000053379	CUYAH_000053529
CUYAH_000053112	CUYAH_000053380	CUYAH_000053530
CUYAH_000053113	CUYAH_000053381	CUYAH_000053531
CUYAH_000053117	CUYAH_000053382	CUYAH_000053538
CUYAH_000053118	CUYAH_000053383	CUYAH_000053540
CUYAH_000053119	CUYAH_000053384	CUYAH_000053558
CUYAH_000053120	CUYAH_000053387	CUYAH_000053560
CUYAH_000053121	CUYAH_000053388	CUYAH_000053583
CUYAH_000053122	CUYAH_000053389	CUYAH_000053588
CUYAH_000053128	CUYAH_000053395	CUYAH_000053599
CUYAH_000053129	CUYAH_000053396	CUYAH_000053600
CUYAH_000053131	CUYAH_000053397	CUYAH_000053601
CUYAH_000053146	CUYAH_000053399	CUYAH_000053605
CUYAH_000053148	CUYAH_000053400	CUYAH_000053617
CUYAH_000053149	CUYAH_000053402	CUYAH_000053630
CUYAH_000053156	CUYAH_000053406	CUYAH_000053631
CUYAH_000053157	CUYAH_000053407	CUYAH_000053633
CUYAH_000053158	CUYAH_000053420	CUYAH_000053635
CUYAH_000053166	CUYAH_000053424	CUYAH_000053636
CUYAH_000053169	CUYAH_000053432	CUYAH_000053637
CUYAH_000053173	CUYAH_000053436	CUYAH_000053640
CUYAH_000053178	CUYAH_000053439	CUYAH_000053643
CUYAH_000053185	CUYAH_000053441	CUYAH_000053644
CUYAH_000053187	CUYAH_000053445	CUYAH_000053645
CUYAH_000053188	CUYAH_000053447	CUYAH_000053654
CUYAH_000053189	CUYAH_000053456	CUYAH_000053655
CUYAH_000053196	CUYAH_000053459	CUYAH_000053661
CUYAH_000053197	CUYAH_000053462	CUYAH_000053662
CUYAH_000053198	CUYAH_000053465	CUYAH_000053663
CUYAH_000053203	CUYAH_000053469	CUYAH_000053670
CUYAH_000053215	CUYAH_000053470	CUYAH_000053671
CUYAH_000053216	CUYAH_000053477	CUYAH_000053676
CUYAH_000053222	CUYAH_000053482	CUYAH_000053686

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000053689	CUYAH_000053920	CUYAH_000054131
CUYAH_000053695	CUYAH_000053924	CUYAH_000054132
CUYAH_000053697	CUYAH_000053925	CUYAH_000054133
CUYAH_000053698	CUYAH_000053930	CUYAH_000054134
CUYAH_000053699	CUYAH_000053931	CUYAH_000054135
CUYAH_000053703	CUYAH_000053933	CUYAH_000054136
CUYAH_000053705	CUYAH_000053942	CUYAH_000054137
CUYAH_000053706	CUYAH_000053946	CUYAH_000054138
CUYAH_000053715	CUYAH_000053951	CUYAH_000054143
CUYAH_000053717	CUYAH_000053952	CUYAH_000054148
CUYAH_000053719	CUYAH_000053953	CUYAH_000054149
CUYAH_000053721	CUYAH_000053959	CUYAH_000054150
CUYAH_000053722	CUYAH_000053973	CUYAH_000054151
CUYAH_000053723	CUYAH_000053974	CUYAH_000054152
CUYAH_000053724	CUYAH_000053979	CUYAH_000054159
CUYAH_000053726	CUYAH_000053982	CUYAH_000054166
CUYAH_000053733	CUYAH_000053984	CUYAH_000054167
CUYAH_000053734	CUYAH_000053995	CUYAH_000054172
CUYAH_000053736	CUYAH_000053996	CUYAH_000054176
CUYAH_000053741	CUYAH_000053997	CUYAH_000054180
CUYAH_000053742	CUYAH_000054001	CUYAH_000054181
CUYAH_000053744	CUYAH_000054002	CUYAH_000054182
CUYAH_000053745	CUYAH_000054003	CUYAH_000054183
CUYAH_000053747	CUYAH_000054004	CUYAH_000054193
CUYAH_000053749	CUYAH_000054016	CUYAH_000054194
CUYAH_000053752	CUYAH_000054017	CUYAH_000054196
CUYAH_000053757	CUYAH_000054025	CUYAH_000054204
CUYAH_000053759	CUYAH_000054026	CUYAH_000054206
CUYAH_000053777	CUYAH_000054027	CUYAH_000054208
CUYAH_000053792	CUYAH_000054028	CUYAH_000054210
CUYAH_000053799	CUYAH_000054029	CUYAH_000054217
CUYAH_000053800	CUYAH_000054030	CUYAH_000054219
CUYAH_000053805	CUYAH_000054033	CUYAH_000054222
CUYAH_000053812	CUYAH_000054035	CUYAH_000054223
CUYAH_000053825	CUYAH_000054040	CUYAH_000054231
CUYAH_000053831	CUYAH_000054054	CUYAH_000054234
CUYAH_000053843	CUYAH_000054060	CUYAH_000054238
CUYAH_000053855	CUYAH_000054067	CUYAH_000054239
CUYAH_000053860	CUYAH_000054068	CUYAH_000054240
CUYAH_000053861	CUYAH_000054075	CUYAH_000054247
CUYAH_000053863	CUYAH_000054080	CUYAH_000054248
CUYAH_000053864	CUYAH_000054093	CUYAH_000054250
CUYAH_000053875	CUYAH_000054096	CUYAH_000054252
CUYAH_000053876	CUYAH_000054103	CUYAH_000054253
CUYAH_000053877	CUYAH_000054106	CUYAH_000054255
CUYAH_000053878	CUYAH_000054111	CUYAH_000054264
CUYAH_000053889	CUYAH_000054116	CUYAH_000054265
CUYAH_000053892	CUYAH_000054120	CUYAH_000054266
CUYAH_000053893	CUYAH_000054125	CUYAH_000054267
CUYAH_000053900	CUYAH_000054126	CUYAH_000054273
CUYAH_000053906	CUYAH_000054127	CUYAH_000054282
CUYAH_000053915	CUYAH_000054129	CUYAH_000054288

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000054293	CUYAH_000054441	CUYAH_000054609
CUYAH_000054294	CUYAH_000054442	CUYAH_000054611
CUYAH_000054297	CUYAH_000054443	CUYAH_000054612
CUYAH_000054309	CUYAH_000054448	CUYAH_000054617
CUYAH_000054317	CUYAH_000054452	CUYAH_000054618
CUYAH_000054323	CUYAH_000054460	CUYAH_000054621
CUYAH_000054326	CUYAH_000054465	CUYAH_000054628
CUYAH_000054329	CUYAH_000054470	CUYAH_000054645
CUYAH_000054334	CUYAH_000054472	CUYAH_000054652
CUYAH_000054339	CUYAH_000054473	CUYAH_000054653
CUYAH_000054340	CUYAH_000054476	CUYAH_000054655
CUYAH_000054341	CUYAH_000054482	CUYAH_000054657
CUYAH_000054342	CUYAH_000054483	CUYAH_000054667
CUYAH_000054343	CUYAH_000054484	CUYAH_000054668
CUYAH_000054344	CUYAH_000054486	CUYAH_000054672
CUYAH_000054345	CUYAH_000054487	CUYAH_000054673
CUYAH_000054346	CUYAH_000054488	CUYAH_000054684
CUYAH_000054347	CUYAH_000054495	CUYAH_000054685
CUYAH_000054357	CUYAH_000054499	CUYAH_000054686
CUYAH_000054359	CUYAH_000054500	CUYAH_000054687
CUYAH_000054364	CUYAH_000054501	CUYAH_000054691
CUYAH_000054368	CUYAH_000054502	CUYAH_000054696
CUYAH_000054369	CUYAH_000054510	CUYAH_000054701
CUYAH_000054370	CUYAH_000054512	CUYAH_000054702
CUYAH_000054371	CUYAH_000054513	CUYAH_000054707
CUYAH_000054372	CUYAH_000054520	CUYAH_000054709
CUYAH_000054373	CUYAH_000054523	CUYAH_000054718
CUYAH_000054374	CUYAH_000054524	CUYAH_000054724
CUYAH_000054377	CUYAH_000054527	CUYAH_000054772
CUYAH_000054380	CUYAH_000054530	CUYAH_000054773
CUYAH_000054382	CUYAH_000054531	CUYAH_000054775
CUYAH_000054385	CUYAH_000054538	CUYAH_000054776
CUYAH_000054387	CUYAH_000054539	CUYAH_000054777
CUYAH_000054394	CUYAH_000054541	CUYAH_000054779
CUYAH_000054395	CUYAH_000054543	CUYAH_000054780
CUYAH_000054398	CUYAH_000054544	CUYAH_000054781
CUYAH_000054401	CUYAH_000054548	CUYAH_000054786
CUYAH_000054403	CUYAH_000054554	CUYAH_000054789
CUYAH_000054404	CUYAH_000054555	CUYAH_000054790
CUYAH_000054406	CUYAH_000054558	CUYAH_000054791
CUYAH_000054411	CUYAH_000054560	CUYAH_000054800
CUYAH_000054412	CUYAH_000054568	CUYAH_000054801
CUYAH_000054415	CUYAH_000054570	CUYAH_000054802
CUYAH_000054422	CUYAH_000054580	CUYAH_000054805
CUYAH_000054423	CUYAH_000054584	CUYAH_000054817
CUYAH_000054432	CUYAH_000054587	CUYAH_000054822
CUYAH_000054433	CUYAH_000054594	CUYAH_000054827
CUYAH_000054434	CUYAH_000054595	CUYAH_000054843
CUYAH_000054437	CUYAH_000054597	CUYAH_000054844
CUYAH_000054438	CUYAH_000054599	CUYAH_000054845
CUYAH_000054439	CUYAH_000054600	CUYAH_000054847
CUYAH_000054440	CUYAH_000054607	CUYAH_000054849

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000054860	CUYAH_000055019	CUYAH_000055256
CUYAH_000054861	CUYAH_000055021	CUYAH_000055257
CUYAH_000054863	CUYAH_000055029	CUYAH_000055258
CUYAH_000054870	CUYAH_000055034	CUYAH_000055259
CUYAH_000054888	CUYAH_000055035	CUYAH_000055261
CUYAH_000054889	CUYAH_000055036	CUYAH_000055263
CUYAH_000054893	CUYAH_000055037	CUYAH_000055264
CUYAH_000054894	CUYAH_000055038	CUYAH_000055265
CUYAH_000054896	CUYAH_000055040	CUYAH_000055267
CUYAH_000054897	CUYAH_000055041	CUYAH_000055274
CUYAH_000054898	CUYAH_000055050	CUYAH_000055284
CUYAH_000054903	CUYAH_000055058	CUYAH_000055285
CUYAH_000054907	CUYAH_000055059	CUYAH_000055286
CUYAH_000054908	CUYAH_000055060	CUYAH_000055288
CUYAH_000054909	CUYAH_000055061	CUYAH_000055289
CUYAH_000054919	CUYAH_000055067	CUYAH_000055290
CUYAH_000054921	CUYAH_000055077	CUYAH_000055291
CUYAH_000054924	CUYAH_000055078	CUYAH_000055294
CUYAH_000054926	CUYAH_000055086	CUYAH_000055304
CUYAH_000054928	CUYAH_000055092	CUYAH_000055306
CUYAH_000054930	CUYAH_000055099	CUYAH_000055314
CUYAH_000054932	CUYAH_000055101	CUYAH_000055315
CUYAH_000054933	CUYAH_000055102	CUYAH_000055327
CUYAH_000054934	CUYAH_000055112	CUYAH_000055335
CUYAH_000054940	CUYAH_000055113	CUYAH_000055336
CUYAH_000054945	CUYAH_000055118	CUYAH_000055337
CUYAH_000054952	CUYAH_000055119	CUYAH_000055341
CUYAH_000054953	CUYAH_000055120	CUYAH_000055342
CUYAH_000054954	CUYAH_000055121	CUYAH_000055345
CUYAH_000054955	CUYAH_000055125	CUYAH_000055349
CUYAH_000054958	CUYAH_000055130	CUYAH_000055356
CUYAH_000054966	CUYAH_000055132	CUYAH_000055362
CUYAH_000054967	CUYAH_000055134	CUYAH_000055375
CUYAH_000054970	CUYAH_000055136	CUYAH_000055379
CUYAH_000054975	CUYAH_000055142	CUYAH_000055381
CUYAH_000054980	CUYAH_000055143	CUYAH_000055387
CUYAH_000054984	CUYAH_000055149	CUYAH_000055391
CUYAH_000054986	CUYAH_000055153	CUYAH_000055393
CUYAH_000054987	CUYAH_000055156	CUYAH_000055394
CUYAH_000054988	CUYAH_000055204	CUYAH_000055398
CUYAH_000054989	CUYAH_000055205	CUYAH_000055411
CUYAH_000054990	CUYAH_000055206	CUYAH_000055412
CUYAH_000054991	CUYAH_000055211	CUYAH_000055413
CUYAH_000054993	CUYAH_000055213	CUYAH_000055414
CUYAH_000054995	CUYAH_000055219	CUYAH_000055415
CUYAH_000054997	CUYAH_000055228	CUYAH_000055422
CUYAH_000055002	CUYAH_000055233	CUYAH_000055423
CUYAH_000055003	CUYAH_000055236	CUYAH_000055427
CUYAH_000055006	CUYAH_000055242	CUYAH_000055433
CUYAH_000055007	CUYAH_000055244	CUYAH_000055434
CUYAH_000055010	CUYAH_000055246	CUYAH_000055436
CUYAH_000055011	CUYAH_000055247	CUYAH_000055438

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000055446	CUYAH_000055576	CUYAH_000055783
CUYAH_000055448	CUYAH_000055578	CUYAH_000055794
CUYAH_000055450	CUYAH_000055579	CUYAH_000055795
CUYAH_000055456	CUYAH_000055580	CUYAH_000055796
CUYAH_000055458	CUYAH_000055584	CUYAH_000055797
CUYAH_000055459	CUYAH_000055585	CUYAH_000055804
CUYAH_000055463	CUYAH_000055586	CUYAH_000055809
CUYAH_000055464	CUYAH_000055596	CUYAH_000055810
CUYAH_000055465	CUYAH_000055606	CUYAH_000055811
CUYAH_000055466	CUYAH_000055619	CUYAH_000055813
CUYAH_000055467	CUYAH_000055632	CUYAH_000055814
CUYAH_000055468	CUYAH_000055644	CUYAH_000055816
CUYAH_000055469	CUYAH_000055646	CUYAH_000055817
CUYAH_000055474	CUYAH_000055654	CUYAH_000055827
CUYAH_000055477	CUYAH_000055657	CUYAH_000055837
CUYAH_000055480	CUYAH_000055662	CUYAH_000055843
CUYAH_000055491	CUYAH_000055669	CUYAH_000055844
CUYAH_000055492	CUYAH_000055670	CUYAH_000055845
CUYAH_000055496	CUYAH_000055676	CUYAH_000055847
CUYAH_000055497	CUYAH_000055684	CUYAH_000055849
CUYAH_000055500	CUYAH_000055691	CUYAH_000055850
CUYAH_000055505	CUYAH_000055694	CUYAH_000055851
CUYAH_000055512	CUYAH_000055695	CUYAH_000055852
CUYAH_000055514	CUYAH_000055700	CUYAH_000055861
CUYAH_000055515	CUYAH_000055706	CUYAH_000055863
CUYAH_000055516	CUYAH_000055707	CUYAH_000055864
CUYAH_000055517	CUYAH_000055708	CUYAH_000055865
CUYAH_000055518	CUYAH_000055710	CUYAH_000055866
CUYAH_000055520	CUYAH_000055711	CUYAH_000055867
CUYAH_000055521	CUYAH_000055712	CUYAH_000055870
CUYAH_000055522	CUYAH_000055716	CUYAH_000055871
CUYAH_000055523	CUYAH_000055722	CUYAH_000055881
CUYAH_000055524	CUYAH_000055725	CUYAH_000055883
CUYAH_000055527	CUYAH_000055726	CUYAH_000055889
CUYAH_000055529	CUYAH_000055731	CUYAH_000055894
CUYAH_000055531	CUYAH_000055733	CUYAH_000055895
CUYAH_000055532	CUYAH_000055734	CUYAH_000055896
CUYAH_000055533	CUYAH_000055744	CUYAH_000055904
CUYAH_000055542	CUYAH_000055746	CUYAH_000055907
CUYAH_000055543	CUYAH_000055749	CUYAH_000055909
CUYAH_000055545	CUYAH_000055750	CUYAH_000055917
CUYAH_000055546	CUYAH_000055751	CUYAH_000055918
CUYAH_000055547	CUYAH_000055753	CUYAH_000055925
CUYAH_000055548	CUYAH_000055755	CUYAH_000055927
CUYAH_000055550	CUYAH_000055757	CUYAH_000055929
CUYAH_000055553	CUYAH_000055770	CUYAH_000055931
CUYAH_000055560	CUYAH_000055771	CUYAH_000055932
CUYAH_000055564	CUYAH_000055773	CUYAH_000055940
CUYAH_000055568	CUYAH_000055774	CUYAH_000055945
CUYAH_000055572	CUYAH_000055780	CUYAH_000055955
CUYAH_000055573	CUYAH_000055781	CUYAH_000055957
CUYAH_000055575	CUYAH_000055782	CUYAH_000055959

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000055961	CUYAH_000056132	CUYAH_000056376
CUYAH_000055965	CUYAH_000056139	CUYAH_000056380
CUYAH_000055968	CUYAH_000056140	CUYAH_000056384
CUYAH_000055969	CUYAH_000056147	CUYAH_000056389
CUYAH_000055970	CUYAH_000056152	CUYAH_000056390
CUYAH_000055971	CUYAH_000056153	CUYAH_000056391
CUYAH_000055975	CUYAH_000056155	CUYAH_000056401
CUYAH_000055981	CUYAH_000056156	CUYAH_000056402
CUYAH_000055984	CUYAH_000056158	CUYAH_000056403
CUYAH_000055988	CUYAH_000056161	CUYAH_000056404
CUYAH_000055990	CUYAH_000056162	CUYAH_000056406
CUYAH_000055993	CUYAH_000056169	CUYAH_000056407
CUYAH_000055996	CUYAH_000056171	CUYAH_000056409
CUYAH_000056001	CUYAH_000056174	CUYAH_000056410
CUYAH_000056002	CUYAH_000056175	CUYAH_000056417
CUYAH_000056003	CUYAH_000056176	CUYAH_000056418
CUYAH_000056004	CUYAH_000056244	CUYAH_000056423
CUYAH_000056005	CUYAH_000056249	CUYAH_000056432
CUYAH_000056008	CUYAH_000056278	CUYAH_000056437
CUYAH_000056013	CUYAH_000056285	CUYAH_000056440
CUYAH_000056017	CUYAH_000056289	CUYAH_000056442
CUYAH_000056018	CUYAH_000056296	CUYAH_000056443
CUYAH_000056025	CUYAH_000056299	CUYAH_000056444
CUYAH_000056036	CUYAH_000056303	CUYAH_000056463
CUYAH_000056037	CUYAH_000056305	CUYAH_000056465
CUYAH_000056039	CUYAH_000056311	CUYAH_000056466
CUYAH_000056046	CUYAH_000056317	CUYAH_000056470
CUYAH_000056047	CUYAH_000056319	CUYAH_000056471
CUYAH_000056051	CUYAH_000056321	CUYAH_000056472
CUYAH_000056052	CUYAH_000056323	CUYAH_000056474
CUYAH_000056054	CUYAH_000056326	CUYAH_000056475
CUYAH_000056055	CUYAH_000056328	CUYAH_000056476
CUYAH_000056056	CUYAH_000056329	CUYAH_000056477
CUYAH_000056058	CUYAH_000056332	CUYAH_000056483
CUYAH_000056062	CUYAH_000056337	CUYAH_000056486
CUYAH_000056066	CUYAH_000056340	CUYAH_000056488
CUYAH_000056072	CUYAH_000056345	CUYAH_000056489
CUYAH_000056074	CUYAH_000056346	CUYAH_000056493
CUYAH_000056075	CUYAH_000056347	CUYAH_000056494
CUYAH_000056083	CUYAH_000056348	CUYAH_000056495
CUYAH_000056084	CUYAH_000056350	CUYAH_000056496
CUYAH_000056085	CUYAH_000056353	CUYAH_000056497
CUYAH_000056086	CUYAH_000056356	CUYAH_000056498
CUYAH_000056099	CUYAH_000056357	CUYAH_000056503
CUYAH_000056100	CUYAH_000056358	CUYAH_000056504
CUYAH_000056109	CUYAH_000056359	CUYAH_000056505
CUYAH_000056110	CUYAH_000056362	CUYAH_000056517
CUYAH_000056115	CUYAH_000056363	CUYAH_000056520
CUYAH_000056124	CUYAH_000056368	CUYAH_000056528
CUYAH_000056128	CUYAH_000056369	CUYAH_000056529
CUYAH_000056130	CUYAH_000056370	CUYAH_000056532
CUYAH_000056131	CUYAH_000056371	CUYAH_000056534

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000056536	CUYAH_000056748	CUYAH_000056966
CUYAH_000056537	CUYAH_000056754	CUYAH_000056967
CUYAH_000056544	CUYAH_000056757	CUYAH_000056968
CUYAH_000056547	CUYAH_000056760	CUYAH_000056970
CUYAH_000056549	CUYAH_000056763	CUYAH_000056975
CUYAH_000056550	CUYAH_000056768	CUYAH_000056976
CUYAH_000056552	CUYAH_000056770	CUYAH_000056977
CUYAH_000056553	CUYAH_000056771	CUYAH_000056983
CUYAH_000056554	CUYAH_000056775	CUYAH_000056984
CUYAH_000056555	CUYAH_000056777	CUYAH_000056987
CUYAH_000056556	CUYAH_000056788	CUYAH_000056995
CUYAH_000056559	CUYAH_000056790	CUYAH_000056999
CUYAH_000056561	CUYAH_000056792	CUYAH_000057008
CUYAH_000056565	CUYAH_000056793	CUYAH_000057015
CUYAH_000056571	CUYAH_000056795	CUYAH_000057022
CUYAH_000056576	CUYAH_000056827	CUYAH_000057025
CUYAH_000056577	CUYAH_000056828	CUYAH_000057029
CUYAH_000056579	CUYAH_000056829	CUYAH_000057040
CUYAH_000056603	CUYAH_000056835	CUYAH_000057042
CUYAH_000056604	CUYAH_000056842	CUYAH_000057052
CUYAH_000056610	CUYAH_000056843	CUYAH_000057060
CUYAH_000056612	CUYAH_000056845	CUYAH_000057062
CUYAH_000056613	CUYAH_000056856	CUYAH_000057068
CUYAH_000056618	CUYAH_000056857	CUYAH_000057069
CUYAH_000056619	CUYAH_000056860	CUYAH_000057070
CUYAH_000056620	CUYAH_000056862	CUYAH_000057147
CUYAH_000056631	CUYAH_000056876	CUYAH_000057148
CUYAH_000056632	CUYAH_000056877	CUYAH_000057156
CUYAH_000056635	CUYAH_000056885	CUYAH_000057228
CUYAH_000056666	CUYAH_000056886	CUYAH_000057295
CUYAH_000056667	CUYAH_000056889	CUYAH_000057338
CUYAH_000056670	CUYAH_000056890	CUYAH_000057395
CUYAH_000056671	CUYAH_000056896	CUYAH_000057440
CUYAH_000056674	CUYAH_000056899	CUYAH_000057441
CUYAH_000056679	CUYAH_000056901	CUYAH_000057496
CUYAH_000056680	CUYAH_000056902	CUYAH_000057504
CUYAH_000056681	CUYAH_000056904	CUYAH_000057507
CUYAH_000056693	CUYAH_000056907	CUYAH_000057510
CUYAH_000056695	CUYAH_000056912	CUYAH_000057535
CUYAH_000056698	CUYAH_000056918	CUYAH_000057537
CUYAH_000056699	CUYAH_000056920	CUYAH_000057538
CUYAH_000056700	CUYAH_000056921	CUYAH_000057539
CUYAH_000056707	CUYAH_000056922	CUYAH_000057545
CUYAH_000056709	CUYAH_000056934	CUYAH_000057552
CUYAH_000056710	CUYAH_000056939	CUYAH_000057556
CUYAH_000056711	CUYAH_000056944	CUYAH_000057557
CUYAH_000056712	CUYAH_000056945	CUYAH_000057558
CUYAH_000056730	CUYAH_000056946	CUYAH_000057559
CUYAH_000056731	CUYAH_000056948	CUYAH_000057562
CUYAH_000056733	CUYAH_000056951	CUYAH_000057564
CUYAH_000056734	CUYAH_000056959	CUYAH_000057566
CUYAH_000056746	CUYAH_000056965	CUYAH_000057568

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000057570	CUYAH_000057774	CUYAH_000058083
CUYAH_000057574	CUYAH_000057775	CUYAH_000058084
CUYAH_000057583	CUYAH_000057782	CUYAH_000058096
CUYAH_000057584	CUYAH_000057784	CUYAH_000058099
CUYAH_000057585	CUYAH_000057800	CUYAH_000058103
CUYAH_000057588	CUYAH_000057803	CUYAH_000058107
CUYAH_000057589	CUYAH_000057804	CUYAH_000058113
CUYAH_000057590	CUYAH_000057807	CUYAH_000058114
CUYAH_000057594	CUYAH_000057808	CUYAH_000058124
CUYAH_000057601	CUYAH_000057811	CUYAH_000058127
CUYAH_000057604	CUYAH_000057813	CUYAH_000058135
CUYAH_000057605	CUYAH_000057819	CUYAH_000058136
CUYAH_000057606	CUYAH_000057820	CUYAH_000058137
CUYAH_000057616	CUYAH_000057827	CUYAH_000058139
CUYAH_000057618	CUYAH_000057830	CUYAH_000058149
CUYAH_000057627	CUYAH_000057837	CUYAH_000058150
CUYAH_000057629	CUYAH_000057850	CUYAH_000058156
CUYAH_000057635	CUYAH_000057854	CUYAH_000058163
CUYAH_000057638	CUYAH_000057861	CUYAH_000058164
CUYAH_000057639	CUYAH_000057868	CUYAH_000058178
CUYAH_000057641	CUYAH_000057874	CUYAH_000058181
CUYAH_000057648	CUYAH_000057877	CUYAH_000058183
CUYAH_000057651	CUYAH_000057878	CUYAH_000058184
CUYAH_000057655	CUYAH_000057879	CUYAH_000058191
CUYAH_000057657	CUYAH_000057880	CUYAH_000058200
CUYAH_000057658	CUYAH_000057883	CUYAH_000058205
CUYAH_000057659	CUYAH_000057885	CUYAH_000058208
CUYAH_000057663	CUYAH_000057889	CUYAH_000058209
CUYAH_000057664	CUYAH_000057890	CUYAH_000058217
CUYAH_000057675	CUYAH_000057892	CUYAH_000058218
CUYAH_000057676	CUYAH_000057897	CUYAH_000058225
CUYAH_000057677	CUYAH_000057904	CUYAH_000058227
CUYAH_000057686	CUYAH_000057909	CUYAH_000058232
CUYAH_000057694	CUYAH_000057913	CUYAH_000058233
CUYAH_000057695	CUYAH_000057923	CUYAH_000058239
CUYAH_000057705	CUYAH_000057925	CUYAH_000058242
CUYAH_000057711	CUYAH_000057926	CUYAH_000058246
CUYAH_000057719	CUYAH_000057936	CUYAH_000058247
CUYAH_000057724	CUYAH_000057946	CUYAH_000058248
CUYAH_000057725	CUYAH_000057956	CUYAH_000058249
CUYAH_000057726	CUYAH_000057966	CUYAH_000058251
CUYAH_000057729	CUYAH_000057967	CUYAH_000058253
CUYAH_000057750	CUYAH_000057970	CUYAH_000058255
CUYAH_000057751	CUYAH_000057971	CUYAH_000058256
CUYAH_000057754	CUYAH_000057972	CUYAH_000058257
CUYAH_000057756	CUYAH_000058063	CUYAH_000058267
CUYAH_000057757	CUYAH_000058065	CUYAH_000058269
CUYAH_000057760	CUYAH_000058067	CUYAH_000058272
CUYAH_000057762	CUYAH_000058068	CUYAH_000058274
CUYAH_000057763	CUYAH_000058071	CUYAH_000058365
CUYAH_000057764	CUYAH_000058073	CUYAH_000058373
CUYAH_000057768	CUYAH_000058080	CUYAH_000058381

HIGHLY CONFIDENTIAL

Appendix 2

CUYAH_000058389	CUYAH_000060610	CUYAH_000063264
CUYAH_000058391	CUYAH_000060655	CUYAH_000063336
CUYAH_000058399	CUYAH_000060700	CUYAH_000063408
CUYAH_000058401	CUYAH_000060777	CUYAH_000063480
CUYAH_000058409	CUYAH_000060854	CUYAH_000063552
CUYAH_000058412	CUYAH_000060931	CUYAH_000063624
CUYAH_000058415	CUYAH_000061008	CUYAH_000063696
CUYAH_000058416	CUYAH_000061085	CUYAH_000063768
CUYAH_000058418	CUYAH_000061162	CUYAH_000063840
CUYAH_000058420	CUYAH_000061239	CUYAH_000063912
CUYAH_000058422	CUYAH_000061316	CUYAH_000063984
CUYAH_000058424	CUYAH_000061317	CUYAH_000064056
CUYAH_000058426	CUYAH_000061360	CUYAH_000064128
CUYAH_000058436	CUYAH_000061403	CUYAH_000064185
CUYAH_000058446	CUYAH_000061446	CUYAH_000064242
CUYAH_000058447	CUYAH_000061489	CUYAH_000064299
CUYAH_000058452	CUYAH_000061532	CUYAH_000064356
CUYAH_000058454	CUYAH_000061575	CUYAH_000064413
CUYAH_000058521	CUYAH_000061618	CUYAH_000064470
CUYAH_000058588	CUYAH_000061661	CUYAH_000064527
CUYAH_000058655	CUYAH_000061704	CUYAH_000064584
CUYAH_000058722	CUYAH_000061716	CUYAH_000064641
CUYAH_000058789	CUYAH_000061728	CUYAH_000064698
CUYAH_000058856	CUYAH_000061740	CUYAH_000064755
CUYAH_000058923	CUYAH_000061752	CUYAH_000064760
CUYAH_000058990	CUYAH_000061817	CUYAH_000064827
CUYAH_000059057	CUYAH_000061882	CUYAH_000064894
CUYAH_000059124	CUYAH_000061947	CUYAH_000064961
CUYAH_000059191	CUYAH_000062012	CUYAH_000065028
CUYAH_000059258	CUYAH_000062077	CUYAH_000065095
CUYAH_000059325	CUYAH_000062142	CUYAH_000065162
CUYAH_000059392	CUYAH_000062207	CUYAH_000065229
CUYAH_000059458	CUYAH_000062272	CUYAH_000065296
CUYAH_000059524	CUYAH_000062337	CUYAH_000065363
CUYAH_000059590	CUYAH_000062402	CUYAH_000065430
CUYAH_000059656	CUYAH_000062467	CUYAH_000065475
CUYAH_000059722	CUYAH_000062532	CUYAH_000065539
CUYAH_000059788	CUYAH_000062544	CUYAH_000065611
CUYAH_000059854	CUYAH_000062556	CUYAH_000065618
CUYAH_000059920	CUYAH_000062568	CUYAH_000065620
CUYAH_000059986	CUYAH_000062580	CUYAH_000065677
CUYAH_000060052	CUYAH_000062637	CUYAH_000065740
CUYAH_000060118	CUYAH_000062694	CUYAH_000065741
CUYAH_000060184	CUYAH_000062751	CUYAH_000065744
CUYAH_000060250	CUYAH_000062808	CUYAH_000065789
CUYAH_000060295	CUYAH_000062865	CUYAH_000065844
CUYAH_000060340	CUYAH_000062922	CUYAH_000065849
CUYAH_000060385	CUYAH_000062979	CUYAH_000065916
CUYAH_000060430	CUYAH_000063036	CUYAH_000065993
CUYAH_000060475	CUYAH_000063093	CUYAH_000066050
CUYAH_000060520	CUYAH_000063150	CUYAH_000066055
CUYAH_000060565	CUYAH_000063207	CUYAH_000066056

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000066099	CUYAH_000066599	CUYAH_000066771
CUYAH_000066171	CUYAH_000066603	CUYAH_000066778
CUYAH_000066196	CUYAH_000066604	CUYAH_000066783
CUYAH_000066206	CUYAH_000066605	CUYAH_000066784
CUYAH_000066249	CUYAH_000066613	CUYAH_000066790
CUYAH_000066311	CUYAH_000066619	CUYAH_000066792
CUYAH_000066320	CUYAH_000066625	CUYAH_000066793
CUYAH_000066330	CUYAH_000066627	CUYAH_000066802
CUYAH_000066331	CUYAH_000066629	CUYAH_000066805
CUYAH_000066340	CUYAH_000066630	CUYAH_000066811
CUYAH_000066367	CUYAH_000066635	CUYAH_000066813
CUYAH_000066418	CUYAH_000066643	CUYAH_000066822
CUYAH_000066425	CUYAH_000066649	CUYAH_000066823
CUYAH_000066433	CUYAH_000066652	CUYAH_000066836
CUYAH_000066441	CUYAH_000066653	CUYAH_000066839
CUYAH_000066444	CUYAH_000066655	CUYAH_000066840
CUYAH_000066445	CUYAH_000066657	CUYAH_000066841
CUYAH_000066446	CUYAH_000066660	CUYAH_000066842
CUYAH_000066447	CUYAH_000066667	CUYAH_000066847
CUYAH_000066450	CUYAH_000066671	CUYAH_000066850
CUYAH_000066460	CUYAH_000066672	CUYAH_000066856
CUYAH_000066462	CUYAH_000066675	CUYAH_000066861
CUYAH_000066467	CUYAH_000066676	CUYAH_000066865
CUYAH_000066476	CUYAH_000066677	CUYAH_000066870
CUYAH_000066477	CUYAH_000066678	CUYAH_000066874
CUYAH_000066481	CUYAH_000066683	CUYAH_000066875
CUYAH_000066487	CUYAH_000066684	CUYAH_000066877
CUYAH_000066488	CUYAH_000066688	CUYAH_000066879
CUYAH_000066492	CUYAH_000066695	CUYAH_000066881
CUYAH_000066494	CUYAH_000066696	CUYAH_000066882
CUYAH_000066496	CUYAH_000066706	CUYAH_000066883
CUYAH_000066498	CUYAH_000066707	CUYAH_000066889
CUYAH_000066499	CUYAH_000066708	CUYAH_000066890
CUYAH_000066500	CUYAH_000066709	CUYAH_000066891
CUYAH_000066513	CUYAH_000066714	CUYAH_000066894
CUYAH_000066514	CUYAH_000066715	CUYAH_000066896
CUYAH_000066516	CUYAH_000066716	CUYAH_000066903
CUYAH_000066518	CUYAH_000066717	CUYAH_000066909
CUYAH_000066519	CUYAH_000066718	CUYAH_000066911
CUYAH_000066520	CUYAH_000066719	CUYAH_000066916
CUYAH_000066521	CUYAH_000066727	CUYAH_000066923
CUYAH_000066523	CUYAH_000066728	CUYAH_000066925
CUYAH_000066529	CUYAH_000066734	CUYAH_000066927
CUYAH_000066531	CUYAH_000066741	CUYAH_000066929
CUYAH_000066532	CUYAH_000066742	CUYAH_000066936
CUYAH_000066547	CUYAH_000066743	CUYAH_000066939
CUYAH_000066554	CUYAH_000066749	CUYAH_000066941
CUYAH_000066561	CUYAH_000066752	CUYAH_000066943
CUYAH_000066566	CUYAH_000066755	CUYAH_000066945
CUYAH_000066583	CUYAH_000066767	CUYAH_000066947
CUYAH_000066591	CUYAH_000066768	CUYAH_000066949
CUYAH_000066594	CUYAH_000066769	CUYAH_000066950

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000066951	CUYAH_000067151	CUYAH_000067387
CUYAH_000066952	CUYAH_000067158	CUYAH_000067390
CUYAH_000066953	CUYAH_000067178	CUYAH_000067397
CUYAH_000066954	CUYAH_000067179	CUYAH_000067399
CUYAH_000066957	CUYAH_000067184	CUYAH_000067406
CUYAH_000066958	CUYAH_000067185	CUYAH_000067407
CUYAH_000066959	CUYAH_000067189	CUYAH_000067409
CUYAH_000066961	CUYAH_000067200	CUYAH_000067411
CUYAH_000066962	CUYAH_000067201	CUYAH_000067413
CUYAH_000066967	CUYAH_000067214	CUYAH_000067414
CUYAH_000066971	CUYAH_000067219	CUYAH_000067416
CUYAH_000066976	CUYAH_000067221	CUYAH_000067417
CUYAH_000066977	CUYAH_000067222	CUYAH_000067419
CUYAH_000066978	CUYAH_000067227	CUYAH_000067426
CUYAH_000066981	CUYAH_000067230	CUYAH_000067427
CUYAH_000066989	CUYAH_000067234	CUYAH_000067430
CUYAH_000066993	CUYAH_000067238	CUYAH_000067432
CUYAH_000067001	CUYAH_000067244	CUYAH_000067433
CUYAH_000067002	CUYAH_000067254	CUYAH_000067434
CUYAH_000067003	CUYAH_000067255	CUYAH_000067435
CUYAH_000067007	CUYAH_000067258	CUYAH_000067436
CUYAH_000067010	CUYAH_000067260	CUYAH_000067446
CUYAH_000067015	CUYAH_000067263	CUYAH_000067458
CUYAH_000067016	CUYAH_000067264	CUYAH_000067459
CUYAH_000067017	CUYAH_000067265	CUYAH_000067460
CUYAH_000067029	CUYAH_000067271	CUYAH_000067464
CUYAH_000067030	CUYAH_000067274	CUYAH_000067470
CUYAH_000067037	CUYAH_000067293	CUYAH_000067472
CUYAH_000067042	CUYAH_000067294	CUYAH_000067479
CUYAH_000067044	CUYAH_000067296	CUYAH_000067489
CUYAH_000067047	CUYAH_000067297	CUYAH_000067490
CUYAH_000067053	CUYAH_000067306	CUYAH_000067491
CUYAH_000067059	CUYAH_000067312	CUYAH_000067492
CUYAH_000067060	CUYAH_000067313	CUYAH_000067495
CUYAH_000067062	CUYAH_000067317	CUYAH_000067497
CUYAH_000067063	CUYAH_000067322	CUYAH_000067500
CUYAH_000067064	CUYAH_000067325	CUYAH_000067501
CUYAH_000067072	CUYAH_000067331	CUYAH_000067502
CUYAH_000067076	CUYAH_000067332	CUYAH_000067511
CUYAH_000067081	CUYAH_000067334	CUYAH_000067517
CUYAH_000067089	CUYAH_000067350	CUYAH_000067529
CUYAH_000067099	CUYAH_000067351	CUYAH_000067530
CUYAH_000067100	CUYAH_000067352	CUYAH_000067531
CUYAH_000067107	CUYAH_000067354	CUYAH_000067532
CUYAH_000067108	CUYAH_000067356	CUYAH_000067533
CUYAH_000067117	CUYAH_000067362	CUYAH_000067534
CUYAH_000067122	CUYAH_000067363	CUYAH_000067560
CUYAH_000067130	CUYAH_000067364	CUYAH_000067562
CUYAH_000067140	CUYAH_000067365	CUYAH_000067563
CUYAH_000067142	CUYAH_000067366	CUYAH_000067564
CUYAH_000067145	CUYAH_000067377	CUYAH_000067565
CUYAH_000067147	CUYAH_000067378	CUYAH_000067570

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000067574	CUYAH_000067751	CUYAH_000068389
CUYAH_000067575	CUYAH_000067752	CUYAH_000068415
CUYAH_000067576	CUYAH_000067758	CUYAH_000068427
CUYAH_000067577	CUYAH_000067764	CUYAH_000068437
CUYAH_000067583	CUYAH_000067771	CUYAH_000068438
CUYAH_000067589	CUYAH_000067780	CUYAH_000068442
CUYAH_000067596	CUYAH_000067781	CUYAH_000068443
CUYAH_000067600	CUYAH_000067790	CUYAH_000068453
CUYAH_000067605	CUYAH_000067795	CUYAH_000068461
CUYAH_000067610	CUYAH_000067796	CUYAH_000068467
CUYAH_000067613	CUYAH_000067798	CUYAH_000068474
CUYAH_000067615	CUYAH_000067803	CUYAH_000068479
CUYAH_000067616	CUYAH_000067804	CUYAH_000068489
CUYAH_000067643	CUYAH_000067806	CUYAH_000068500
CUYAH_000067650	CUYAH_000067807	CUYAH_000068502
CUYAH_000067651	CUYAH_000067813	CUYAH_000068503
CUYAH_000067655	CUYAH_000067815	CUYAH_000068504
CUYAH_000067662	CUYAH_000067816	CUYAH_000068507
CUYAH_000067668	CUYAH_000067818	CUYAH_000068534
CUYAH_000067669	CUYAH_000067819	CUYAH_000068536
CUYAH_000067670	CUYAH_000067822	CUYAH_000068539
CUYAH_000067674	CUYAH_000067827	CUYAH_000068540
CUYAH_000067675	CUYAH_000067833	CUYAH_000068543
CUYAH_000067677	CUYAH_000067834	CUYAH_000068549
CUYAH_000067678	CUYAH_000067836	CUYAH_000068552
CUYAH_000067679	CUYAH_000067837	CUYAH_000068562
CUYAH_000067681	CUYAH_000067838	CUYAH_000068570
CUYAH_000067682	CUYAH_000067839	CUYAH_000068573
CUYAH_000067683	CUYAH_000067848	CUYAH_000068590
CUYAH_000067686	CUYAH_000067850	CUYAH_000068599
CUYAH_000067687	CUYAH_000067860	CUYAH_000068600
CUYAH_000067688	CUYAH_000067870	CUYAH_000068608
CUYAH_000067690	CUYAH_000067880	CUYAH_000068615
CUYAH_000067696	CUYAH_000067885	CUYAH_000068619
CUYAH_000067701	CUYAH_000067912	CUYAH_000068620
CUYAH_000067702	CUYAH_000067939	CUYAH_000068621
CUYAH_000067710	CUYAH_000067966	CUYAH_000068641
CUYAH_000067719	CUYAH_000067993	CUYAH_000068656
CUYAH_000067720	CUYAH_000068020	CUYAH_000068660
CUYAH_000067723	CUYAH_000068047	CUYAH_000068661
CUYAH_000067724	CUYAH_000068074	CUYAH_000068670
CUYAH_000067725	CUYAH_000068101	CUYAH_000068671
CUYAH_000067726	CUYAH_000068128	CUYAH_000068673
CUYAH_000067730	CUYAH_000068155	CUYAH_000068675
CUYAH_000067731	CUYAH_000068181	CUYAH_000068679
CUYAH_000067733	CUYAH_000068207	CUYAH_000068684
CUYAH_000067740	CUYAH_000068233	CUYAH_000068690
CUYAH_000067741	CUYAH_000068259	CUYAH_000068702
CUYAH_000067742	CUYAH_000068285	CUYAH_000068704
CUYAH_000067743	CUYAH_000068311	CUYAH_000068715
CUYAH_000067749	CUYAH_000068337	CUYAH_000068723
CUYAH_000067750	CUYAH_000068363	CUYAH_000068724

HIGHLY CONFIDENTIAL

Appendix 2

CUYAH_000068731	CUYAH_000068970	CUYAH_000069174
CUYAH_000068756	CUYAH_000068976	CUYAH_000069176
CUYAH_000068758	CUYAH_000068995	CUYAH_000069178
CUYAH_000068759	CUYAH_000069004	CUYAH_000069179
CUYAH_000068760	CUYAH_000069005	CUYAH_000069182
CUYAH_000068775	CUYAH_000069007	CUYAH_000069184
CUYAH_000068780	CUYAH_000069013	CUYAH_000069191
CUYAH_000068785	CUYAH_000069015	CUYAH_000069195
CUYAH_000068792	CUYAH_000069017	CUYAH_000069199
CUYAH_000068799	CUYAH_000069020	CUYAH_000069207
CUYAH_000068806	CUYAH_000069022	CUYAH_000069212
CUYAH_000068808	CUYAH_000069028	CUYAH_000069216
CUYAH_000068826	CUYAH_000069031	CUYAH_000069217
CUYAH_000068827	CUYAH_000069034	CUYAH_000069225
CUYAH_000068828	CUYAH_000069035	CUYAH_000069233
CUYAH_000068829	CUYAH_000069044	CUYAH_000069242
CUYAH_000068851	CUYAH_000069058	CUYAH_000069243
CUYAH_000068853	CUYAH_000069065	CUYAH_000069251
CUYAH_000068855	CUYAH_000069073	CUYAH_000069259
CUYAH_000068857	CUYAH_000069075	CUYAH_000069268
CUYAH_000068860	CUYAH_000069076	CUYAH_000069277
CUYAH_000068868	CUYAH_000069077	CUYAH_000069278
CUYAH_000068874	CUYAH_000069078	CUYAH_000069280
CUYAH_000068876	CUYAH_000069079	CUYAH_000069282
CUYAH_000068878	CUYAH_000069083	CUYAH_000069284
CUYAH_000068879	CUYAH_000069084	CUYAH_000069290
CUYAH_000068888	CUYAH_000069086	CUYAH_000069292
CUYAH_000068889	CUYAH_000069087	CUYAH_000069300
CUYAH_000068892	CUYAH_000069088	CUYAH_000069309
CUYAH_000068893	CUYAH_000069089	CUYAH_000069317
CUYAH_000068896	CUYAH_000069096	CUYAH_000069319
CUYAH_000068898	CUYAH_000069097	CUYAH_000069326
CUYAH_000068904	CUYAH_000069098	CUYAH_000069327
CUYAH_000068909	CUYAH_000069099	CUYAH_000069333
CUYAH_000068911	CUYAH_000069101	CUYAH_000069335
CUYAH_000068914	CUYAH_000069109	CUYAH_000069339
CUYAH_000068915	CUYAH_000069110	CUYAH_000069347
CUYAH_000068918	CUYAH_000069111	CUYAH_000069349
CUYAH_000068919	CUYAH_000069113	CUYAH_000069350
CUYAH_000068921	CUYAH_000069114	CUYAH_000069352
CUYAH_000068923	CUYAH_000069116	CUYAH_000069356
CUYAH_000068925	CUYAH_000069125	CUYAH_000069361
CUYAH_000068931	CUYAH_000069126	CUYAH_000069367
CUYAH_000068933	CUYAH_000069127	CUYAH_000069382
CUYAH_000068934	CUYAH_000069130	CUYAH_000069392
CUYAH_000068937	CUYAH_000069132	CUYAH_000069393
CUYAH_000068938	CUYAH_000069139	CUYAH_000069398
CUYAH_000068946	CUYAH_000069141	CUYAH_000069400
CUYAH_000068947	CUYAH_000069153	CUYAH_000069401
CUYAH_000068949	CUYAH_000069154	CUYAH_000069408
CUYAH_000068956	CUYAH_000069161	CUYAH_000069409
CUYAH_000068962	CUYAH_000069173	CUYAH_000069410

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000069412	CUYAH_000069716	CUYAH_000069915
CUYAH_000069413	CUYAH_000069722	CUYAH_000069922
CUYAH_000069420	CUYAH_000069724	CUYAH_000069924
CUYAH_000069424	CUYAH_000069725	CUYAH_000069938
CUYAH_000069429	CUYAH_000069737	CUYAH_000069940
CUYAH_000069441	CUYAH_000069739	CUYAH_000069942
CUYAH_000069447	CUYAH_000069740	CUYAH_000069954
CUYAH_000069448	CUYAH_000069741	CUYAH_000069955
CUYAH_000069450	CUYAH_000069751	CUYAH_000069957
CUYAH_000069453	CUYAH_000069758	CUYAH_000069970
CUYAH_000069460	CUYAH_000069764	CUYAH_000069977
CUYAH_000069461	CUYAH_000069765	CUYAH_000069978
CUYAH_000069462	CUYAH_000069767	CUYAH_000069981
CUYAH_000069470	CUYAH_000069773	CUYAH_000069982
CUYAH_000069471	CUYAH_000069774	CUYAH_000069983
CUYAH_000069475	CUYAH_000069775	CUYAH_000069988
CUYAH_000069480	CUYAH_000069780	CUYAH_000069993
CUYAH_000069481	CUYAH_000069783	CUYAH_000069995
CUYAH_000069484	CUYAH_000069786	CUYAH_000069997
CUYAH_000069485	CUYAH_000069787	CUYAH_000070005
CUYAH_000069486	CUYAH_000069788	CUYAH_000070006
CUYAH_000069488	CUYAH_000069790	CUYAH_000070027
CUYAH_000069499	CUYAH_000069791	CUYAH_000070038
CUYAH_000069502	CUYAH_000069792	CUYAH_000070042
CUYAH_000069504	CUYAH_000069793	CUYAH_000070043
CUYAH_000069505	CUYAH_000069803	CUYAH_000070050
CUYAH_000069509	CUYAH_000069805	CUYAH_000070052
CUYAH_000069522	CUYAH_000069806	CUYAH_000070053
CUYAH_000069532	CUYAH_000069808	CUYAH_000070054
CUYAH_000069536	CUYAH_000069809	CUYAH_000070058
CUYAH_000069538	CUYAH_000069827	CUYAH_000070060
CUYAH_000069551	CUYAH_000069829	CUYAH_000070061
CUYAH_000069557	CUYAH_000069830	CUYAH_000070070
CUYAH_000069570	CUYAH_000069833	CUYAH_000070077
CUYAH_000069583	CUYAH_000069842	CUYAH_000070082
CUYAH_000069596	CUYAH_000069845	CUYAH_000070083
CUYAH_000069601	CUYAH_000069848	CUYAH_000070084
CUYAH_000069602	CUYAH_000069853	CUYAH_000070089
CUYAH_000069608	CUYAH_000069868	CUYAH_000070094
CUYAH_000069613	CUYAH_000069870	CUYAH_000070096
CUYAH_000069617	CUYAH_000069871	CUYAH_000070109
CUYAH_000069626	CUYAH_000069875	CUYAH_000070116
CUYAH_000069627	CUYAH_000069877	CUYAH_000070117
CUYAH_000069641	CUYAH_000069878	CUYAH_000070121
CUYAH_000069645	CUYAH_000069880	CUYAH_000070122
CUYAH_000069694	CUYAH_000069882	CUYAH_000070131
CUYAH_000069696	CUYAH_000069888	CUYAH_000070134
CUYAH_000069697	CUYAH_000069896	CUYAH_000070136
CUYAH_000069702	CUYAH_000069907	CUYAH_000070137
CUYAH_000069709	CUYAH_000069908	CUYAH_000070139
CUYAH_000069711	CUYAH_000069910	CUYAH_000070140
CUYAH_000069714	CUYAH_000069911	CUYAH_000070144

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000070145	CUYAH_000070391	CUYAH_000070656
CUYAH_000070152	CUYAH_000070392	CUYAH_000070660
CUYAH_000070154	CUYAH_000070394	CUYAH_000070661
CUYAH_000070155	CUYAH_000070396	CUYAH_000070666
CUYAH_000070157	CUYAH_000070405	CUYAH_000070674
CUYAH_000070158	CUYAH_000070412	CUYAH_000070676
CUYAH_000070159	CUYAH_000070417	CUYAH_000070679
CUYAH_000070164	CUYAH_000070418	CUYAH_000070681
CUYAH_000070173	CUYAH_000070420	CUYAH_000070685
CUYAH_000070179	CUYAH_000070434	CUYAH_000070695
CUYAH_000070180	CUYAH_000070439	CUYAH_000070700
CUYAH_000070184	CUYAH_000070442	CUYAH_000070702
CUYAH_000070185	CUYAH_000070443	CUYAH_000070704
CUYAH_000070186	CUYAH_000070460	CUYAH_000070711
CUYAH_000070187	CUYAH_000070461	CUYAH_000070721
CUYAH_000070193	CUYAH_000070463	CUYAH_000070723
CUYAH_000070196	CUYAH_000070464	CUYAH_000070730
CUYAH_000070197	CUYAH_000070466	CUYAH_000070731
CUYAH_000070199	CUYAH_000070467	CUYAH_000070741
CUYAH_000070209	CUYAH_000070475	CUYAH_000070743
CUYAH_000070215	CUYAH_000070479	CUYAH_000070745
CUYAH_000070216	CUYAH_000070481	CUYAH_000070752
CUYAH_000070218	CUYAH_000070486	CUYAH_000070754
CUYAH_000070220	CUYAH_000070488	CUYAH_000070755
CUYAH_000070224	CUYAH_000070490	CUYAH_000070762
CUYAH_000070225	CUYAH_000070501	CUYAH_000070763
CUYAH_000070226	CUYAH_000070508	CUYAH_000070766
CUYAH_000070232	CUYAH_000070509	CUYAH_000070769
CUYAH_000070233	CUYAH_000070520	CUYAH_000070770
CUYAH_000070244	CUYAH_000070521	CUYAH_000070771
CUYAH_000070259	CUYAH_000070522	CUYAH_000070772
CUYAH_000070261	CUYAH_000070531	CUYAH_000070776
CUYAH_000070269	CUYAH_000070533	CUYAH_000070777
CUYAH_000070279	CUYAH_000070534	CUYAH_000070825
CUYAH_000070293	CUYAH_000070535	CUYAH_000070834
CUYAH_000070295	CUYAH_000070542	CUYAH_000070836
CUYAH_000070305	CUYAH_000070543	CUYAH_000070838
CUYAH_000070315	CUYAH_000070549	CUYAH_000070842
CUYAH_000070318	CUYAH_000070562	CUYAH_000070844
CUYAH_000070325	CUYAH_000070563	CUYAH_000070846
CUYAH_000070326	CUYAH_000070564	CUYAH_000070849
CUYAH_000070327	CUYAH_000070570	CUYAH_000070850
CUYAH_000070350	CUYAH_000070574	CUYAH_000070851
CUYAH_000070351	CUYAH_000070580	CUYAH_000070857
CUYAH_000070352	CUYAH_000070590	CUYAH_000070858
CUYAH_000070357	CUYAH_000070607	CUYAH_000070860
CUYAH_000070358	CUYAH_000070629	CUYAH_000070861
CUYAH_000070365	CUYAH_000070635	CUYAH_000070866
CUYAH_000070367	CUYAH_000070636	CUYAH_000070874
CUYAH_000070372	CUYAH_000070639	CUYAH_000070879
CUYAH_000070381	CUYAH_000070642	CUYAH_000070887
CUYAH_000070383	CUYAH_000070653	CUYAH_000070897

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000070905	CUYAH_000071136	CUYAH_000071336
CUYAH_000070909	CUYAH_000071137	CUYAH_000071337
CUYAH_000070910	CUYAH_000071143	CUYAH_000071343
CUYAH_000070922	CUYAH_000071148	CUYAH_000071344
CUYAH_000070923	CUYAH_000071149	CUYAH_000071356
CUYAH_000070924	CUYAH_000071152	CUYAH_000071363
CUYAH_000070925	CUYAH_000071153	CUYAH_000071365
CUYAH_000070926	CUYAH_000071154	CUYAH_000071366
CUYAH_000070927	CUYAH_000071155	CUYAH_000071375
CUYAH_000070936	CUYAH_000071163	CUYAH_000071376
CUYAH_000070938	CUYAH_000071165	CUYAH_000071380
CUYAH_000070961	CUYAH_000071171	CUYAH_000071392
CUYAH_000070962	CUYAH_000071172	CUYAH_000071393
CUYAH_000070968	CUYAH_000071173	CUYAH_000071394
CUYAH_000070969	CUYAH_000071189	CUYAH_000071395
CUYAH_000070983	CUYAH_000071196	CUYAH_000071398
CUYAH_000070990	CUYAH_000071199	CUYAH_000071399
CUYAH_000070991	CUYAH_000071201	CUYAH_000071400
CUYAH_000070998	CUYAH_000071209	CUYAH_000071401
CUYAH_000071001	CUYAH_000071212	CUYAH_000071407
CUYAH_000071005	CUYAH_000071216	CUYAH_000071410
CUYAH_000071007	CUYAH_000071217	CUYAH_000071413
CUYAH_000071009	CUYAH_000071229	CUYAH_000071420
CUYAH_000071011	CUYAH_000071231	CUYAH_000071421
CUYAH_000071012	CUYAH_000071232	CUYAH_000071422
CUYAH_000071019	CUYAH_000071233	CUYAH_000071428
CUYAH_000071022	CUYAH_000071235	CUYAH_000071429
CUYAH_000071024	CUYAH_000071242	CUYAH_000071430
CUYAH_000071034	CUYAH_000071245	CUYAH_000071431
CUYAH_000071035	CUYAH_000071249	CUYAH_000071432
CUYAH_000071037	CUYAH_000071253	CUYAH_000071442
CUYAH_000071040	CUYAH_000071254	CUYAH_000071446
CUYAH_000071042	CUYAH_000071256	CUYAH_000071451
CUYAH_000071043	CUYAH_000071263	CUYAH_000071453
CUYAH_000071044	CUYAH_000071265	CUYAH_000071460
CUYAH_000071045	CUYAH_000071270	CUYAH_000071461
CUYAH_000071047	CUYAH_000071272	CUYAH_000071462
CUYAH_000071049	CUYAH_000071273	CUYAH_000071465
CUYAH_000071050	CUYAH_000071274	CUYAH_000071466
CUYAH_000071053	CUYAH_000071276	CUYAH_000071473
CUYAH_000071059	CUYAH_000071281	CUYAH_000071475
CUYAH_000071061	CUYAH_000071282	CUYAH_000071476
CUYAH_000071062	CUYAH_000071288	CUYAH_000071480
CUYAH_000071063	CUYAH_000071294	CUYAH_000071481
CUYAH_000071064	CUYAH_000071296	CUYAH_000071482
CUYAH_000071071	CUYAH_000071302	CUYAH_000071486
CUYAH_000071081	CUYAH_000071304	CUYAH_000071488
CUYAH_000071086	CUYAH_000071305	CUYAH_000071489
CUYAH_000071099	CUYAH_000071308	CUYAH_000071490
CUYAH_000071110	CUYAH_000071309	CUYAH_000071493
CUYAH_000071123	CUYAH_000071310	CUYAH_000071496
CUYAH_000071134	CUYAH_000071334	CUYAH_000071522

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000071540	CUYAH_000071811	CUYAH_000072062
CUYAH_000071546	CUYAH_000071812	CUYAH_000072080
CUYAH_000071548	CUYAH_000071813	CUYAH_000072082
CUYAH_000071559	CUYAH_000071815	CUYAH_000072085
CUYAH_000071561	CUYAH_000071819	CUYAH_000072086
CUYAH_000071572	CUYAH_000071823	CUYAH_000072109
CUYAH_000071576	CUYAH_000071824	CUYAH_000072111
CUYAH_000071579	CUYAH_000071826	CUYAH_000072112
CUYAH_000071580	CUYAH_000071838	CUYAH_000072113
CUYAH_000071582	CUYAH_000071842	CUYAH_000072114
CUYAH_000071583	CUYAH_000071853	CUYAH_000072118
CUYAH_000071584	CUYAH_000071864	CUYAH_000072119
CUYAH_000071585	CUYAH_000071866	CUYAH_000072122
CUYAH_000071595	CUYAH_000071870	CUYAH_000072124
CUYAH_000071599	CUYAH_000071877	CUYAH_000072126
CUYAH_000071600	CUYAH_000071879	CUYAH_000072133
CUYAH_000071601	CUYAH_000071895	CUYAH_000072135
CUYAH_000071602	CUYAH_000071918	CUYAH_000072137
CUYAH_000071604	CUYAH_000071924	CUYAH_000072152
CUYAH_000071607	CUYAH_000071925	CUYAH_000072155
CUYAH_000071613	CUYAH_000071930	CUYAH_000072156
CUYAH_000071615	CUYAH_000071932	CUYAH_000072157
CUYAH_000071618	CUYAH_000071933	CUYAH_000072158
CUYAH_000071619	CUYAH_000071934	CUYAH_000072159
CUYAH_000071621	CUYAH_000071935	CUYAH_000072160
CUYAH_000071625	CUYAH_000071942	CUYAH_000072164
CUYAH_000071634	CUYAH_000071947	CUYAH_000072166
CUYAH_000071635	CUYAH_000071948	CUYAH_000072168
CUYAH_000071648	CUYAH_000071950	CUYAH_000072181
CUYAH_000071653	CUYAH_000071952	CUYAH_000072182
CUYAH_000071655	CUYAH_000071953	CUYAH_000072183
CUYAH_000071656	CUYAH_000071954	CUYAH_000072185
CUYAH_000071667	CUYAH_000071955	CUYAH_000072186
CUYAH_000071680	CUYAH_000071966	CUYAH_000072187
CUYAH_000071681	CUYAH_000071972	CUYAH_000072189
CUYAH_000071683	CUYAH_000071973	CUYAH_000072190
CUYAH_000071686	CUYAH_000071984	CUYAH_000072193
CUYAH_000071687	CUYAH_000071992	CUYAH_000072199
CUYAH_000071689	CUYAH_000072001	CUYAH_000072200
CUYAH_000071691	CUYAH_000072003	CUYAH_000072205
CUYAH_000071768	CUYAH_000072005	CUYAH_000072206
CUYAH_000071772	CUYAH_000072006	CUYAH_000072208
CUYAH_000071773	CUYAH_000072009	CUYAH_000072209
CUYAH_000071775	CUYAH_000072016	CUYAH_000072214
CUYAH_000071783	CUYAH_000072017	CUYAH_000072216
CUYAH_000071792	CUYAH_000072018	CUYAH_000072217
CUYAH_000071794	CUYAH_000072019	CUYAH_000072219
CUYAH_000071796	CUYAH_000072021	CUYAH_000072222
CUYAH_000071801	CUYAH_000072024	CUYAH_000072224
CUYAH_000071802	CUYAH_000072032	CUYAH_000072225
CUYAH_000071809	CUYAH_000072033	CUYAH_000072226
CUYAH_000071810	CUYAH_000072044	CUYAH_000072237

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000072241	CUYAH_000072487	CUYAH_000072804
CUYAH_000072242	CUYAH_000072488	CUYAH_000072812
CUYAH_000072265	CUYAH_000072490	CUYAH_000072814
CUYAH_000072276	CUYAH_000072492	CUYAH_000072822
CUYAH_000072278	CUYAH_000072493	CUYAH_000072823
CUYAH_000072292	CUYAH_000072499	CUYAH_000072825
CUYAH_000072294	CUYAH_000072500	CUYAH_000072832
CUYAH_000072296	CUYAH_000072501	CUYAH_000072834
CUYAH_000072297	CUYAH_000072505	CUYAH_000072835
CUYAH_000072298	CUYAH_000072508	CUYAH_000072837
CUYAH_000072299	CUYAH_000072521	CUYAH_000072838
CUYAH_000072300	CUYAH_000072524	CUYAH_000072844
CUYAH_000072301	CUYAH_000072525	CUYAH_000072849
CUYAH_000072302	CUYAH_000072526	CUYAH_000072850
CUYAH_000072304	CUYAH_000072528	CUYAH_000072853
CUYAH_000072305	CUYAH_000072653	CUYAH_000072854
CUYAH_000072317	CUYAH_000072658	CUYAH_000072857
CUYAH_000072319	CUYAH_000072660	CUYAH_000072860
CUYAH_000072328	CUYAH_000072669	CUYAH_000072863
CUYAH_000072335	CUYAH_000072680	CUYAH_000072864
CUYAH_000072336	CUYAH_000072685	CUYAH_000072865
CUYAH_000072337	CUYAH_000072686	CUYAH_000072882
CUYAH_000072349	CUYAH_000072689	CUYAH_000072885
CUYAH_000072356	CUYAH_000072690	CUYAH_000072887
CUYAH_000072358	CUYAH_000072693	CUYAH_000072888
CUYAH_000072364	CUYAH_000072695	CUYAH_000072889
CUYAH_000072376	CUYAH_000072696	CUYAH_000072897
CUYAH_000072396	CUYAH_000072708	CUYAH_000072899
CUYAH_000072397	CUYAH_000072713	CUYAH_000072900
CUYAH_000072398	CUYAH_000072715	CUYAH_000072910
CUYAH_000072406	CUYAH_000072720	CUYAH_000072912
CUYAH_000072413	CUYAH_000072723	CUYAH_000072920
CUYAH_000072414	CUYAH_000072725	CUYAH_000072931
CUYAH_000072415	CUYAH_000072727	CUYAH_000072932
CUYAH_000072431	CUYAH_000072728	CUYAH_000072934
CUYAH_000072432	CUYAH_000072730	CUYAH_000072945
CUYAH_000072436	CUYAH_000072731	CUYAH_000072957
CUYAH_000072437	CUYAH_000072732	CUYAH_000072985
CUYAH_000072438	CUYAH_000072734	CUYAH_000072988
CUYAH_000072439	CUYAH_000072744	CUYAH_000072990
CUYAH_000072444	CUYAH_000072749	CUYAH_000072999
CUYAH_000072457	CUYAH_000072751	CUYAH_000073011
CUYAH_000072458	CUYAH_000072766	CUYAH_000073021
CUYAH_000072459	CUYAH_000072775	CUYAH_000073022
CUYAH_000072462	CUYAH_000072784	CUYAH_000073024
CUYAH_000072467	CUYAH_000072786	CUYAH_000073026
CUYAH_000072469	CUYAH_000072787	CUYAH_000073027
CUYAH_000072470	CUYAH_000072790	CUYAH_000073033
CUYAH_000072471	CUYAH_000072791	CUYAH_000073035
CUYAH_000072482	CUYAH_000072799	CUYAH_000073037
CUYAH_000072485	CUYAH_000072800	CUYAH_000073051
CUYAH_000072486	CUYAH_000072802	CUYAH_000073053

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000073069	CUYAH_000073374	CUYAH_000073564
CUYAH_000073079	CUYAH_000073376	CUYAH_000073568
CUYAH_000073082	CUYAH_000073377	CUYAH_000073599
CUYAH_000073084	CUYAH_000073381	CUYAH_000073612
CUYAH_000073086	CUYAH_000073382	CUYAH_000073613
CUYAH_000073088	CUYAH_000073384	CUYAH_000073620
CUYAH_000073089	CUYAH_000073390	CUYAH_000073623
CUYAH_000073099	CUYAH_000073391	CUYAH_000073625
CUYAH_000073101	CUYAH_000073392	CUYAH_000073626
CUYAH_000073102	CUYAH_000073393	CUYAH_000073634
CUYAH_000073115	CUYAH_000073395	CUYAH_000073635
CUYAH_000073122	CUYAH_000073397	CUYAH_000073641
CUYAH_000073125	CUYAH_000073400	CUYAH_000073643
CUYAH_000073130	CUYAH_000073401	CUYAH_000073645
CUYAH_000073132	CUYAH_000073402	CUYAH_000073649
CUYAH_000073139	CUYAH_000073403	CUYAH_000073651
CUYAH_000073150	CUYAH_000073404	CUYAH_000073652
CUYAH_000073155	CUYAH_000073405	CUYAH_000073654
CUYAH_000073157	CUYAH_000073406	CUYAH_000073665
CUYAH_000073161	CUYAH_000073414	CUYAH_000073666
CUYAH_000073167	CUYAH_000073419	CUYAH_000073668
CUYAH_000073176	CUYAH_000073423	CUYAH_000073670
CUYAH_000073177	CUYAH_000073424	CUYAH_000073672
CUYAH_000073179	CUYAH_000073425	CUYAH_000073685
CUYAH_000073180	CUYAH_000073427	CUYAH_000073689
CUYAH_000073198	CUYAH_000073431	CUYAH_000073702
CUYAH_000073214	CUYAH_000073440	CUYAH_000073705
CUYAH_000073223	CUYAH_000073448	CUYAH_000073715
CUYAH_000073225	CUYAH_000073455	CUYAH_000073718
CUYAH_000073231	CUYAH_000073468	CUYAH_000073721
CUYAH_000073265	CUYAH_000073473	CUYAH_000073728
CUYAH_000073272	CUYAH_000073474	CUYAH_000073729
CUYAH_000073277	CUYAH_000073476	CUYAH_000073731
CUYAH_000073282	CUYAH_000073483	CUYAH_000073744
CUYAH_000073285	CUYAH_000073485	CUYAH_000073745
CUYAH_000073286	CUYAH_000073487	CUYAH_000073748
CUYAH_000073288	CUYAH_000073490	CUYAH_000073754
CUYAH_000073290	CUYAH_000073501	CUYAH_000073756
CUYAH_000073293	CUYAH_000073508	CUYAH_000073757
CUYAH_000073294	CUYAH_000073512	CUYAH_000073765
CUYAH_000073297	CUYAH_000073513	CUYAH_000073766
CUYAH_000073299	CUYAH_000073523	CUYAH_000073768
CUYAH_000073301	CUYAH_000073526	CUYAH_000073797
CUYAH_000073310	CUYAH_000073537	CUYAH_000073826
CUYAH_000073311	CUYAH_000073538	CUYAH_000073855
CUYAH_000073316	CUYAH_000073543	CUYAH_000073884
CUYAH_000073318	CUYAH_000073550	CUYAH_000073887
CUYAH_000073345	CUYAH_000073551	CUYAH_000073888
CUYAH_000073347	CUYAH_000073552	CUYAH_000073893
CUYAH_000073352	CUYAH_000073553	CUYAH_000073897
CUYAH_000073360	CUYAH_000073557	CUYAH_000073899
CUYAH_000073366	CUYAH_000073562	CUYAH_000073906

HIGHLY CONFIDENTIAL

Appendix 2

CUYAH_000073919	CUYAH_000074189	CUYAH_000074544
CUYAH_000073921	CUYAH_000074190	CUYAH_000074575
CUYAH_000073926	CUYAH_000074191	CUYAH_000074588
CUYAH_000073927	CUYAH_000074192	CUYAH_000074590
CUYAH_000073928	CUYAH_000074193	CUYAH_000074596
CUYAH_000073940	CUYAH_000074194	CUYAH_000074598
CUYAH_000073947	CUYAH_000074197	CUYAH_000074600
CUYAH_000073954	CUYAH_000074198	CUYAH_000074602
CUYAH_000073965	CUYAH_000074212	CUYAH_000074603
CUYAH_000073967	CUYAH_000074216	CUYAH_000074604
CUYAH_000073975	CUYAH_000074222	CUYAH_000074622
CUYAH_000073986	CUYAH_000074239	CUYAH_000074630
CUYAH_000073999	CUYAH_000074255	CUYAH_000074633
CUYAH_000074004	CUYAH_000074258	CUYAH_000074637
CUYAH_000074007	CUYAH_000074260	CUYAH_000074645
CUYAH_000074014	CUYAH_000074265	CUYAH_000074657
CUYAH_000074015	CUYAH_000074269	CUYAH_000074659
CUYAH_000074026	CUYAH_000074272	CUYAH_000074670
CUYAH_000074027	CUYAH_000074275	CUYAH_000074681
CUYAH_000074028	CUYAH_000074277	CUYAH_000074696
CUYAH_000074034	CUYAH_000074281	CUYAH_000074701
CUYAH_000074035	CUYAH_000074293	CUYAH_000074702
CUYAH_000074039	CUYAH_000074304	CUYAH_000074711
CUYAH_000074046	CUYAH_000074326	CUYAH_000074713
CUYAH_000074047	CUYAH_000074348	CUYAH_000074720
CUYAH_000074048	CUYAH_000074353	CUYAH_000074721
CUYAH_000074049	CUYAH_000074354	CUYAH_000074730
CUYAH_000074051	CUYAH_000074355	CUYAH_000074731
CUYAH_000074052	CUYAH_000074377	CUYAH_000074738
CUYAH_000074053	CUYAH_000074399	CUYAH_000074741
CUYAH_000074054	CUYAH_000074408	CUYAH_000074742
CUYAH_000074060	CUYAH_000074416	CUYAH_000074743
CUYAH_000074061	CUYAH_000074417	CUYAH_000074744
CUYAH_000074065	CUYAH_000074426	CUYAH_000074749
CUYAH_000074070	CUYAH_000074429	CUYAH_000074750
CUYAH_000074097	CUYAH_000074444	CUYAH_000074758
CUYAH_000074100	CUYAH_000074448	CUYAH_000074759
CUYAH_000074104	CUYAH_000074454	CUYAH_000074760
CUYAH_000074107	CUYAH_000074455	CUYAH_000074762
CUYAH_000074108	CUYAH_000074456	CUYAH_000074769
CUYAH_000074145	CUYAH_000074462	CUYAH_000074771
CUYAH_000074149	CUYAH_000074464	CUYAH_000074775
CUYAH_000074150	CUYAH_000074479	CUYAH_000074777
CUYAH_000074152	CUYAH_000074485	CUYAH_000074778
CUYAH_000074160	CUYAH_000074489	CUYAH_000074783
CUYAH_000074162	CUYAH_000074490	CUYAH_000074784
CUYAH_000074163	CUYAH_000074496	CUYAH_000074788
CUYAH_000074174	CUYAH_000074507	CUYAH_000074790
CUYAH_000074177	CUYAH_000074527	CUYAH_000074792
CUYAH_000074178	CUYAH_000074529	CUYAH_000074793
CUYAH_000074184	CUYAH_000074535	CUYAH_000074795
CUYAH_000074188	CUYAH_000074541	CUYAH_000074858

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000074871	CUYAH_000075124	CUYAH_000075321
CUYAH_000074876	CUYAH_000075126	CUYAH_000075323
CUYAH_000074877	CUYAH_000075130	CUYAH_000075325
CUYAH_000074880	CUYAH_000075131	CUYAH_000075329
CUYAH_000074881	CUYAH_000075132	CUYAH_000075345
CUYAH_000074884	CUYAH_000075133	CUYAH_000075359
CUYAH_000074887	CUYAH_000075135	CUYAH_000075360
CUYAH_000074894	CUYAH_000075139	CUYAH_000075365
CUYAH_000074898	CUYAH_000075145	CUYAH_000075371
CUYAH_000074900	CUYAH_000075154	CUYAH_000075372
CUYAH_000074901	CUYAH_000075163	CUYAH_000075375
CUYAH_000074910	CUYAH_000075172	CUYAH_000075377
CUYAH_000074911	CUYAH_000075181	CUYAH_000075379
CUYAH_000074913	CUYAH_000075183	CUYAH_000075400
CUYAH_000074928	CUYAH_000075184	CUYAH_000075401
CUYAH_000074938	CUYAH_000075185	CUYAH_000075402
CUYAH_000074939	CUYAH_000075187	CUYAH_000075403
CUYAH_000074951	CUYAH_000075197	CUYAH_000075421
CUYAH_000074952	CUYAH_000075198	CUYAH_000075430
CUYAH_000074957	CUYAH_000075199	CUYAH_000075431
CUYAH_000074969	CUYAH_000075200	CUYAH_000075433
CUYAH_000074976	CUYAH_000075201	CUYAH_000075434
CUYAH_000074977	CUYAH_000075203	CUYAH_000075436
CUYAH_000074978	CUYAH_000075205	CUYAH_000075437
CUYAH_000074980	CUYAH_000075206	CUYAH_000075438
CUYAH_000074995	CUYAH_000075208	CUYAH_000075439
CUYAH_000074997	CUYAH_000075211	CUYAH_000075445
CUYAH_000074999	CUYAH_000075214	CUYAH_000075448
CUYAH_000075001	CUYAH_000075222	CUYAH_000075461
CUYAH_000075003	CUYAH_000075225	CUYAH_000075463
CUYAH_000075007	CUYAH_000075227	CUYAH_000075465
CUYAH_000075009	CUYAH_000075229	CUYAH_000075484
CUYAH_000075018	CUYAH_000075231	CUYAH_000075491
CUYAH_000075023	CUYAH_000075233	CUYAH_000075493
CUYAH_000075024	CUYAH_000075234	CUYAH_000075502
CUYAH_000075034	CUYAH_000075236	CUYAH_000075503
CUYAH_000075038	CUYAH_000075247	CUYAH_000075505
CUYAH_000075041	CUYAH_000075250	CUYAH_000075507
CUYAH_000075042	CUYAH_000075271	CUYAH_000075508
CUYAH_000075053	CUYAH_000075273	CUYAH_000075509
CUYAH_000075060	CUYAH_000075292	CUYAH_000075513
CUYAH_000075062	CUYAH_000075294	CUYAH_000075515
CUYAH_000075071	CUYAH_000075296	CUYAH_000075516
CUYAH_000075077	CUYAH_000075303	CUYAH_000075517
CUYAH_000075078	CUYAH_000075304	CUYAH_000075530
CUYAH_000075081	CUYAH_000075306	CUYAH_000075531
CUYAH_000075082	CUYAH_000075307	CUYAH_000075536
CUYAH_000075085	CUYAH_000075309	CUYAH_000075543
CUYAH_000075089	CUYAH_000075311	CUYAH_000075544
CUYAH_000075090	CUYAH_000075312	CUYAH_000075547
CUYAH_000075096	CUYAH_000075317	CUYAH_000075549
CUYAH_000075110	CUYAH_000075319	CUYAH_000075551

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000075553	CUYAH_000075740	CUYAH_000075894
CUYAH_000075555	CUYAH_000075741	CUYAH_000075896
CUYAH_000075563	CUYAH_000075743	CUYAH_000075899
CUYAH_000075570	CUYAH_000075750	CUYAH_000075901
CUYAH_000075572	CUYAH_000075756	CUYAH_000075903
CUYAH_000075573	CUYAH_000075757	CUYAH_000075904
CUYAH_000075574	CUYAH_000075760	CUYAH_000075905
CUYAH_000075575	CUYAH_000075761	CUYAH_000075906
CUYAH_000075581	CUYAH_000075762	CUYAH_000075907
CUYAH_000075583	CUYAH_000075766	CUYAH_000075908
CUYAH_000075584	CUYAH_000075768	CUYAH_000075910
CUYAH_000075586	CUYAH_000075769	CUYAH_000075919
CUYAH_000075587	CUYAH_000075778	CUYAH_000075923
CUYAH_000075588	CUYAH_000075781	CUYAH_000075927
CUYAH_000075591	CUYAH_000075793	CUYAH_000075930
CUYAH_000075593	CUYAH_000075794	CUYAH_000075934
CUYAH_000075595	CUYAH_000075795	CUYAH_000075936
CUYAH_000075597	CUYAH_000075796	CUYAH_000075941
CUYAH_000075598	CUYAH_000075800	CUYAH_000075971
CUYAH_000075600	CUYAH_000075801	CUYAH_000075979
CUYAH_000075602	CUYAH_000075807	CUYAH_000075980
CUYAH_000075605	CUYAH_000075808	CUYAH_000075981
CUYAH_000075606	CUYAH_000075809	CUYAH_000075982
CUYAH_000075607	CUYAH_000075810	CUYAH_000075984
CUYAH_000075609	CUYAH_000075812	CUYAH_000076002
CUYAH_000075610	CUYAH_000075834	CUYAH_000076004
CUYAH_000075618	CUYAH_000075835	CUYAH_000076007
CUYAH_000075620	CUYAH_000075836	CUYAH_000076008
CUYAH_000075622	CUYAH_000075841	CUYAH_000076009
CUYAH_000075623	CUYAH_000075842	CUYAH_000076024
CUYAH_000075631	CUYAH_000075843	CUYAH_000076025
CUYAH_000075633	CUYAH_000075844	CUYAH_000076029
CUYAH_000075636	CUYAH_000075845	CUYAH_000076035
CUYAH_000075638	CUYAH_000075846	CUYAH_000076052
CUYAH_000075648	CUYAH_000075852	CUYAH_000076057
CUYAH_000075649	CUYAH_000075853	CUYAH_000076066
CUYAH_000075653	CUYAH_000075854	CUYAH_000076070
CUYAH_000075654	CUYAH_000075855	CUYAH_000076109
CUYAH_000075655	CUYAH_000075857	CUYAH_000076110
CUYAH_000075656	CUYAH_000075858	CUYAH_000076111
CUYAH_000075666	CUYAH_000075859	CUYAH_000076112
CUYAH_000075667	CUYAH_000075869	CUYAH_000076125
CUYAH_000075669	CUYAH_000075873	CUYAH_000076127
CUYAH_000075674	CUYAH_000075879	CUYAH_000076139
CUYAH_000075678	CUYAH_000075883	CUYAH_000076141
CUYAH_000075681	CUYAH_000075884	CUYAH_000076143
CUYAH_000075683	CUYAH_000075886	CUYAH_000076152
CUYAH_000075695	CUYAH_000075887	CUYAH_000076154
CUYAH_000075696	CUYAH_000075888	CUYAH_000076158
CUYAH_000075702	CUYAH_000075890	CUYAH_000076159
CUYAH_000075733	CUYAH_000075891	CUYAH_000076161
CUYAH_000075738	CUYAH_000075893	CUYAH_000076163

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000076164	CUYAH_000076478	CUYAH_000076726
CUYAH_000076166	CUYAH_000076479	CUYAH_000076728
CUYAH_000076168	CUYAH_000076480	CUYAH_000076730
CUYAH_000076169	CUYAH_000076481	CUYAH_000076731
CUYAH_000076170	CUYAH_000076482	CUYAH_000076733
CUYAH_000076171	CUYAH_000076483	CUYAH_000076742
CUYAH_000076174	CUYAH_000076494	CUYAH_000076749
CUYAH_000076190	CUYAH_000076496	CUYAH_000076750
CUYAH_000076192	CUYAH_000076498	CUYAH_000076752
CUYAH_000076198	CUYAH_000076499	CUYAH_000076753
CUYAH_000076275	CUYAH_000076501	CUYAH_000076756
CUYAH_000076292	CUYAH_000076503	CUYAH_000076757
CUYAH_000076309	CUYAH_000076531	CUYAH_000076758
CUYAH_000076326	CUYAH_000076532	CUYAH_000076759
CUYAH_000076343	CUYAH_000076533	CUYAH_000076761
CUYAH_000076344	CUYAH_000076534	CUYAH_000076763
CUYAH_000076353	CUYAH_000076535	CUYAH_000076764
CUYAH_000076360	CUYAH_000076540	CUYAH_000076770
CUYAH_000076365	CUYAH_000076543	CUYAH_000076772
CUYAH_000076371	CUYAH_000076547	CUYAH_000076780
CUYAH_000076372	CUYAH_000076548	CUYAH_000076788
CUYAH_000076377	CUYAH_000076550	CUYAH_000076790
CUYAH_000076378	CUYAH_000076551	CUYAH_000076794
CUYAH_000076379	CUYAH_000076553	CUYAH_000076800
CUYAH_000076387	CUYAH_000076554	CUYAH_000076801
CUYAH_000076395	CUYAH_000076555	CUYAH_000076809
CUYAH_000076396	CUYAH_000076556	CUYAH_000076811
CUYAH_000076399	CUYAH_000076568	CUYAH_000076813
CUYAH_000076400	CUYAH_000076570	CUYAH_000076822
CUYAH_000076401	CUYAH_000076602	CUYAH_000076823
CUYAH_000076404	CUYAH_000076604	CUYAH_000076825
CUYAH_000076412	CUYAH_000076626	CUYAH_000076836
CUYAH_000076414	CUYAH_000076630	CUYAH_000076867
CUYAH_000076419	CUYAH_000076656	CUYAH_000076876
CUYAH_000076428	CUYAH_000076667	CUYAH_000076881
CUYAH_000076429	CUYAH_000076668	CUYAH_000076891
CUYAH_000076431	CUYAH_000076670	CUYAH_000076894
CUYAH_000076433	CUYAH_000076674	CUYAH_000076904
CUYAH_000076435	CUYAH_000076676	CUYAH_000076905
CUYAH_000076441	CUYAH_000076677	CUYAH_000076912
CUYAH_000076442	CUYAH_000076680	CUYAH_000076913
CUYAH_000076444	CUYAH_000076687	CUYAH_000076921
CUYAH_000076446	CUYAH_000076688	CUYAH_000076929
CUYAH_000076451	CUYAH_000076694	CUYAH_000076930
CUYAH_000076454	CUYAH_000076695	CUYAH_000076936
CUYAH_000076461	CUYAH_000076714	CUYAH_000076939
CUYAH_000076462	CUYAH_000076716	CUYAH_000076942
CUYAH_000076466	CUYAH_000076718	CUYAH_000076947
CUYAH_000076468	CUYAH_000076719	CUYAH_000076948
CUYAH_000076472	CUYAH_000076720	CUYAH_000076958
CUYAH_000076474	CUYAH_000076721	CUYAH_000076960
CUYAH_000076477	CUYAH_000076722	CUYAH_000076964

HIGHLY CONFIDENTIAL

Appendix 2

CUYAH_000076974	CUYAH_000077336	CUYAH_000077616
CUYAH_000076988	CUYAH_000077337	CUYAH_000077621
CUYAH_000076991	CUYAH_000077340	CUYAH_000077622
CUYAH_000077001	CUYAH_000077342	CUYAH_000077624
CUYAH_000077025	CUYAH_000077357	CUYAH_000077625
CUYAH_000077054	CUYAH_000077365	CUYAH_000077628
CUYAH_000077056	CUYAH_000077385	CUYAH_000077638
CUYAH_000077068	CUYAH_000077387	CUYAH_000077641
CUYAH_000077069	CUYAH_000077396	CUYAH_000077649
CUYAH_000077070	CUYAH_000077401	CUYAH_000077650
CUYAH_000077071	CUYAH_000077408	CUYAH_000077662
CUYAH_000077073	CUYAH_000077410	CUYAH_000077664
CUYAH_000077076	CUYAH_000077411	CUYAH_000077678
CUYAH_000077080	CUYAH_000077424	CUYAH_000077685
CUYAH_000077103	CUYAH_000077427	CUYAH_000077699
CUYAH_000077121	CUYAH_000077429	CUYAH_000077700
CUYAH_000077127	CUYAH_000077457	CUYAH_000077703
CUYAH_000077128	CUYAH_000077458	CUYAH_000077705
CUYAH_000077133	CUYAH_000077459	CUYAH_000077706
CUYAH_000077134	CUYAH_000077467	CUYAH_000077716
CUYAH_000077141	CUYAH_000077472	CUYAH_000077718
CUYAH_000077144	CUYAH_000077487	CUYAH_000077719
CUYAH_000077146	CUYAH_000077506	CUYAH_000077720
CUYAH_000077154	CUYAH_000077507	CUYAH_000077722
CUYAH_000077155	CUYAH_000077517	CUYAH_000077723
CUYAH_000077157	CUYAH_000077529	CUYAH_000077728
CUYAH_000077173	CUYAH_000077531	CUYAH_000077737
CUYAH_000077176	CUYAH_000077532	CUYAH_000077745
CUYAH_000077179	CUYAH_000077534	CUYAH_000077753
CUYAH_000077188	CUYAH_000077535	CUYAH_000077754
CUYAH_000077191	CUYAH_000077537	CUYAH_000077758
CUYAH_000077196	CUYAH_000077539	CUYAH_000077760
CUYAH_000077202	CUYAH_000077540	CUYAH_000077763
CUYAH_000077204	CUYAH_000077542	CUYAH_000077765
CUYAH_000077211	CUYAH_000077547	CUYAH_000077767
CUYAH_000077215	CUYAH_000077549	CUYAH_000077805
CUYAH_000077221	CUYAH_000077559	CUYAH_000077807
CUYAH_000077222	CUYAH_000077566	CUYAH_000077809
CUYAH_000077230	CUYAH_000077569	CUYAH_000077810
CUYAH_000077238	CUYAH_000077572	CUYAH_000077813
CUYAH_000077241	CUYAH_000077580	CUYAH_000077821
CUYAH_000077242	CUYAH_000077583	CUYAH_000077829
CUYAH_000077243	CUYAH_000077586	CUYAH_000077836
CUYAH_000077247	CUYAH_000077592	CUYAH_000077854
CUYAH_000077256	CUYAH_000077595	CUYAH_000077855
CUYAH_000077257	CUYAH_000077596	CUYAH_000077856
CUYAH_000077258	CUYAH_000077597	CUYAH_000077858
CUYAH_000077270	CUYAH_000077600	CUYAH_000077861
CUYAH_000077281	CUYAH_000077602	CUYAH_000077862
CUYAH_000077289	CUYAH_000077606	CUYAH_000077866
CUYAH_000077293	CUYAH_000077611	CUYAH_000077873
CUYAH_000077332	CUYAH_000077612	CUYAH_000077885

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000077887	CUYAH_000078149	CUYAH_000078512
CUYAH_000077893	CUYAH_000078150	CUYAH_000078519
CUYAH_000077896	CUYAH_000078166	CUYAH_000078520
CUYAH_000077898	CUYAH_000078182	CUYAH_000078549
CUYAH_000077899	CUYAH_000078198	CUYAH_000078559
CUYAH_000077900	CUYAH_000078214	CUYAH_000078560
CUYAH_000077902	CUYAH_000078233	CUYAH_000078572
CUYAH_000077905	CUYAH_000078236	CUYAH_000078588
CUYAH_000077911	CUYAH_000078254	CUYAH_000078590
CUYAH_000077914	CUYAH_000078275	CUYAH_000078601
CUYAH_000077915	CUYAH_000078302	CUYAH_000078603
CUYAH_000077916	CUYAH_000078313	CUYAH_000078604
CUYAH_000077917	CUYAH_000078315	CUYAH_000078605
CUYAH_000077925	CUYAH_000078318	CUYAH_000078610
CUYAH_000077926	CUYAH_000078330	CUYAH_000078612
CUYAH_000077928	CUYAH_000078340	CUYAH_000078613
CUYAH_000077932	CUYAH_000078348	CUYAH_000078625
CUYAH_000077939	CUYAH_000078351	CUYAH_000078632
CUYAH_000077940	CUYAH_000078352	CUYAH_000078633
CUYAH_000077942	CUYAH_000078354	CUYAH_000078634
CUYAH_000077951	CUYAH_000078356	CUYAH_000078636
CUYAH_000077955	CUYAH_000078358	CUYAH_000078646
CUYAH_000077959	CUYAH_000078361	CUYAH_000078651
CUYAH_000077961	CUYAH_000078384	CUYAH_000078658
CUYAH_000077963	CUYAH_000078389	CUYAH_000078660
CUYAH_000077980	CUYAH_000078400	CUYAH_000078663
CUYAH_000078005	CUYAH_000078401	CUYAH_000078678
CUYAH_000078006	CUYAH_000078403	CUYAH_000078679
CUYAH_000078008	CUYAH_000078404	CUYAH_000078686
CUYAH_000078022	CUYAH_000078405	CUYAH_000078688
CUYAH_000078026	CUYAH_000078412	CUYAH_000078689
CUYAH_000078033	CUYAH_000078415	CUYAH_000078693
CUYAH_000078034	CUYAH_000078416	CUYAH_000078694
CUYAH_000078036	CUYAH_000078417	CUYAH_000078702
CUYAH_000078046	CUYAH_000078419	CUYAH_000078709
CUYAH_000078052	CUYAH_000078420	CUYAH_000078710
CUYAH_000078054	CUYAH_000078422	CUYAH_000078716
CUYAH_000078056	CUYAH_000078425	CUYAH_000078723
CUYAH_000078058	CUYAH_000078426	CUYAH_000078724
CUYAH_000078068	CUYAH_000078427	CUYAH_000078727
CUYAH_000078088	CUYAH_000078428	CUYAH_000078733
CUYAH_000078089	CUYAH_000078430	CUYAH_000078736
CUYAH_000078090	CUYAH_000078443	CUYAH_000078752
CUYAH_000078093	CUYAH_000078451	CUYAH_000078763
CUYAH_000078110	CUYAH_000078453	CUYAH_000078765
CUYAH_000078120	CUYAH_000078454	CUYAH_000078784
CUYAH_000078123	CUYAH_000078455	CUYAH_000078787
CUYAH_000078134	CUYAH_000078463	CUYAH_000078790
CUYAH_000078136	CUYAH_000078488	CUYAH_000078801
CUYAH_000078139	CUYAH_000078495	CUYAH_000078837
CUYAH_000078141	CUYAH_000078501	CUYAH_000078865
CUYAH_000078142	CUYAH_000078507	CUYAH_000078868

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000078872	CUYAH_000079133	CUYAH_000079405
CUYAH_000078873	CUYAH_000079137	CUYAH_000079418
CUYAH_000078878	CUYAH_000079139	CUYAH_000079421
CUYAH_000078880	CUYAH_000079165	CUYAH_000079426
CUYAH_000078881	CUYAH_000079166	CUYAH_000079427
CUYAH_000078883	CUYAH_000079177	CUYAH_000079433
CUYAH_000078887	CUYAH_000079179	CUYAH_000079439
CUYAH_000078900	CUYAH_000079180	CUYAH_000079440
CUYAH_000078903	CUYAH_000079183	CUYAH_000079461
CUYAH_000078914	CUYAH_000079188	CUYAH_000079462
CUYAH_000078921	CUYAH_000079196	CUYAH_000079468
CUYAH_000078935	CUYAH_000079198	CUYAH_000079470
CUYAH_000078936	CUYAH_000079220	CUYAH_000079473
CUYAH_000078942	CUYAH_000079223	CUYAH_000079475
CUYAH_000078943	CUYAH_000079235	CUYAH_000079477
CUYAH_000078945	CUYAH_000079253	CUYAH_000079478
CUYAH_000078946	CUYAH_000079254	CUYAH_000079479
CUYAH_000078949	CUYAH_000079264	CUYAH_000079481
CUYAH_000078953	CUYAH_000079265	CUYAH_000079482
CUYAH_000078956	CUYAH_000079266	CUYAH_000079484
CUYAH_000078959	CUYAH_000079283	CUYAH_000079486
CUYAH_000078960	CUYAH_000079286	CUYAH_000079488
CUYAH_000078969	CUYAH_000079288	CUYAH_000079515
CUYAH_000078972	CUYAH_000079289	CUYAH_000079516
CUYAH_000078983	CUYAH_000079290	CUYAH_000079518
CUYAH_000079002	CUYAH_000079291	CUYAH_000079536
CUYAH_000079024	CUYAH_000079292	CUYAH_000079566
CUYAH_000079038	CUYAH_000079293	CUYAH_000079567
CUYAH_000079046	CUYAH_000079294	CUYAH_000079570
CUYAH_000079048	CUYAH_000079295	CUYAH_000079581
CUYAH_000079049	CUYAH_000079296	CUYAH_000079583
CUYAH_000079050	CUYAH_000079297	CUYAH_000079584
CUYAH_000079051	CUYAH_000079298	CUYAH_000079586
CUYAH_000079052	CUYAH_000079299	CUYAH_000079598
CUYAH_000079053	CUYAH_000079300	CUYAH_000079599
CUYAH_000079061	CUYAH_000079302	CUYAH_000079601
CUYAH_000079063	CUYAH_000079307	CUYAH_000079603
CUYAH_000079067	CUYAH_000079309	CUYAH_000079604
CUYAH_000079069	CUYAH_000079322	CUYAH_000079605
CUYAH_000079071	CUYAH_000079323	CUYAH_000079620
CUYAH_000079073	CUYAH_000079324	CUYAH_000079644
CUYAH_000079076	CUYAH_000079327	CUYAH_000079645
CUYAH_000079089	CUYAH_000079335	CUYAH_000079661
CUYAH_000079101	CUYAH_000079347	CUYAH_000079664
CUYAH_000079103	CUYAH_000079356	CUYAH_000079665
CUYAH_000079104	CUYAH_000079375	CUYAH_000079675
CUYAH_000079113	CUYAH_000079377	CUYAH_000079676
CUYAH_000079114	CUYAH_000079388	CUYAH_000079677
CUYAH_000079123	CUYAH_000079390	CUYAH_000079679
CUYAH_000079125	CUYAH_000079395	CUYAH_000079687
CUYAH_000079126	CUYAH_000079397	CUYAH_000079689
CUYAH_000079128	CUYAH_000079404	CUYAH_000079691

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000079694	CUYAH_000079969	CUYAH_000080219
CUYAH_000079696	CUYAH_000079971	CUYAH_000080223
CUYAH_000079705	CUYAH_000079972	CUYAH_000080227
CUYAH_000079716	CUYAH_000079980	CUYAH_000080230
CUYAH_000079718	CUYAH_000079982	CUYAH_000080238
CUYAH_000079730	CUYAH_000079985	CUYAH_000080241
CUYAH_000079731	CUYAH_000079989	CUYAH_000080246
CUYAH_000079742	CUYAH_000079999	CUYAH_000080248
CUYAH_000079745	CUYAH_000080005	CUYAH_000080264
CUYAH_000079756	CUYAH_000080009	CUYAH_000080266
CUYAH_000079774	CUYAH_000080010	CUYAH_000080267
CUYAH_000079782	CUYAH_000080011	CUYAH_000080269
CUYAH_000079784	CUYAH_000080020	CUYAH_000080291
CUYAH_000079789	CUYAH_000080027	CUYAH_000080293
CUYAH_000079790	CUYAH_000080036	CUYAH_000080294
CUYAH_000079791	CUYAH_000080037	CUYAH_000080296
CUYAH_000079799	CUYAH_000080038	CUYAH_000080300
CUYAH_000079800	CUYAH_000080041	CUYAH_000080305
CUYAH_000079801	CUYAH_000080042	CUYAH_000080315
CUYAH_000079803	CUYAH_000080048	CUYAH_000080327
CUYAH_000079804	CUYAH_000080049	CUYAH_000080335
CUYAH_000079806	CUYAH_000080051	CUYAH_000080348
CUYAH_000079812	CUYAH_000080058	CUYAH_000080350
CUYAH_000079822	CUYAH_000080070	CUYAH_000080364
CUYAH_000079823	CUYAH_000080076	CUYAH_000080369
CUYAH_000079828	CUYAH_000080079	CUYAH_000080374
CUYAH_000079848	CUYAH_000080085	CUYAH_000080376
CUYAH_000079859	CUYAH_000080086	CUYAH_000080382
CUYAH_000079861	CUYAH_000080089	CUYAH_000080386
CUYAH_000079863	CUYAH_000080103	CUYAH_000080387
CUYAH_000079871	CUYAH_000080114	CUYAH_000080388
CUYAH_000079873	CUYAH_000080118	CUYAH_000080389
CUYAH_000079874	CUYAH_000080121	CUYAH_000080392
CUYAH_000079876	CUYAH_000080137	CUYAH_000080393
CUYAH_000079878	CUYAH_000080140	CUYAH_000080397
CUYAH_000079890	CUYAH_000080150	CUYAH_000080405
CUYAH_000079891	CUYAH_000080151	CUYAH_000080419
CUYAH_000079892	CUYAH_000080158	CUYAH_000080425
CUYAH_000079893	CUYAH_000080162	CUYAH_000080426
CUYAH_000079895	CUYAH_000080163	CUYAH_000080438
CUYAH_000079896	CUYAH_000080165	CUYAH_000080440
CUYAH_000079914	CUYAH_000080169	CUYAH_000080495
CUYAH_000079936	CUYAH_000080170	CUYAH_000080504
CUYAH_000079939	CUYAH_000080171	CUYAH_000080507
CUYAH_000079940	CUYAH_000080172	CUYAH_000080510
CUYAH_000079942	CUYAH_000080178	CUYAH_000080512
CUYAH_000079943	CUYAH_000080180	CUYAH_000080513
CUYAH_000079954	CUYAH_000080181	CUYAH_000080529
CUYAH_000079956	CUYAH_000080184	CUYAH_000080531
CUYAH_000079957	CUYAH_000080191	CUYAH_000080535
CUYAH_000079961	CUYAH_000080204	CUYAH_000080536
CUYAH_000079968	CUYAH_000080214	CUYAH_000080538

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000080544	CUYAH_000080900	CUYAH_000081243
CUYAH_000080552	CUYAH_000080910	CUYAH_000081245
CUYAH_000080554	CUYAH_000080912	CUYAH_000081247
CUYAH_000080572	CUYAH_000080921	CUYAH_000081249
CUYAH_000080574	CUYAH_000080937	CUYAH_000081252
CUYAH_000080585	CUYAH_000080939	CUYAH_000081254
CUYAH_000080589	CUYAH_000080942	CUYAH_000081269
CUYAH_000080591	CUYAH_000080943	CUYAH_000081285
CUYAH_000080605	CUYAH_000080954	CUYAH_000081291
CUYAH_000080607	CUYAH_000080955	CUYAH_000081297
CUYAH_000080609	CUYAH_000080957	CUYAH_000081299
CUYAH_000080611	CUYAH_000080959	CUYAH_000081307
CUYAH_000080626	CUYAH_000080961	CUYAH_000081313
CUYAH_000080639	CUYAH_000080962	CUYAH_000081314
CUYAH_000080640	CUYAH_000080967	CUYAH_000081315
CUYAH_000080668	CUYAH_000080983	CUYAH_000081317
CUYAH_000080670	CUYAH_000080986	CUYAH_000081328
CUYAH_000080672	CUYAH_000080997	CUYAH_000081345
CUYAH_000080679	CUYAH_000081051	CUYAH_000081352
CUYAH_000080681	CUYAH_000081053	CUYAH_000081354
CUYAH_000080692	CUYAH_000081056	CUYAH_000081355
CUYAH_000080696	CUYAH_000081058	CUYAH_000081357
CUYAH_000080707	CUYAH_000081063	CUYAH_000081359
CUYAH_000080711	CUYAH_000081073	CUYAH_000081365
CUYAH_000080714	CUYAH_000081094	CUYAH_000081366
CUYAH_000080719	CUYAH_000081098	CUYAH_000081368
CUYAH_000080720	CUYAH_000081100	CUYAH_000081370
CUYAH_000080721	CUYAH_000081102	CUYAH_000081371
CUYAH_000080723	CUYAH_000081103	CUYAH_000081378
CUYAH_000080731	CUYAH_000081112	CUYAH_000081381
CUYAH_000080743	CUYAH_000081162	CUYAH_000081383
CUYAH_000080754	CUYAH_000081173	CUYAH_000081394
CUYAH_000080767	CUYAH_000081175	CUYAH_000081397
CUYAH_000080771	CUYAH_000081183	CUYAH_000081400
CUYAH_000080772	CUYAH_000081185	CUYAH_000081402
CUYAH_000080778	CUYAH_000081186	CUYAH_000081409
CUYAH_000080787	CUYAH_000081187	CUYAH_000081414
CUYAH_000080788	CUYAH_000081189	CUYAH_000081415
CUYAH_000080796	CUYAH_000081190	CUYAH_000081417
CUYAH_000080819	CUYAH_000081191	CUYAH_000081419
CUYAH_000080843	CUYAH_000081192	CUYAH_000081424
CUYAH_000080845	CUYAH_000081194	CUYAH_000081428
CUYAH_000080848	CUYAH_000081203	CUYAH_000081433
CUYAH_000080851	CUYAH_000081204	CUYAH_000081441
CUYAH_000080854	CUYAH_000081213	CUYAH_000081442
CUYAH_000080857	CUYAH_000081222	CUYAH_000081445
CUYAH_000080863	CUYAH_000081227	CUYAH_000081449
CUYAH_000080868	CUYAH_000081229	CUYAH_000081451
CUYAH_000080869	CUYAH_000081231	CUYAH_000081468
CUYAH_000080871	CUYAH_000081232	CUYAH_000081475
CUYAH_000080894	CUYAH_000081239	CUYAH_000081479
CUYAH_000080897	CUYAH_000081241	CUYAH_000081482

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_000081485	CUYAH_000081693	CUYAH_000088895
CUYAH_000081489	CUYAH_000081703	CUYAH_000088908
CUYAH_000081491	CUYAH_000081715	CUYAH_000097408
CUYAH_000081498	CUYAH_000081723	CUYAH_000097414
CUYAH_000081502	CUYAH_000081733	CUYAH_000099975
CUYAH_000081504	CUYAH_000081736	CUYAH_000119422
CUYAH_000081507	CUYAH_000081737	CUYAH_001348968
CUYAH_000081518	CUYAH_000081740	CUYAH_001349044
CUYAH_000081521	CUYAH_000081742	CUYAH_001349120
CUYAH_000081534	CUYAH_000081746	CUYAH_001349190
CUYAH_000081535	CUYAH_000081748	CUYAH_001349266
CUYAH_000081537	CUYAH_000081749	CUYAH_001349342
CUYAH_000081539	CUYAH_000081754	CUYAH_001349431
CUYAH_000081540	CUYAH_000081759	CUYAH_001349519
CUYAH_000081541	CUYAH_000081767	CUYAH_001350090
CUYAH_000081549	CUYAH_000081768	CUYAH_001355728
CUYAH_000081551	CUYAH_000081771	CUYAH_001355729
CUYAH_000081554	CUYAH_000087795	CUYAH_001355730
CUYAH_000081556	CUYAH_000087796	CUYAH_001355731
CUYAH_000081563	CUYAH_000087801	CUYAH_001394514
CUYAH_000081573	CUYAH_000087806	CUYAH_001428494
CUYAH_000081574	CUYAH_000087812	CUYAH_001429788
CUYAH_000081576	CUYAH_000087818	CUYAH_001430087
CUYAH_000081578	CUYAH_000087822	CUYAH_001430207
CUYAH_000081580	CUYAH_000087827	CUYAH_001435201
CUYAH_000081581	CUYAH_000088723	CUYAH_001435203
CUYAH_000081587	CUYAH_000088754	CUYAH_001471795
CUYAH_000081589	CUYAH_000088836	CUYAH_001498024
CUYAH_000081590	CUYAH_000088837	CUYAH_001522306
CUYAH_000081592	CUYAH_000088838	CUYAH_001548661
CUYAH_000081593	CUYAH_000088839	CUYAH_001572108
CUYAH_000081596	CUYAH_000088840	CUYAH_001620493
CUYAH_000081605	CUYAH_000088841	CUYAH_001620578
CUYAH_000081618	CUYAH_000088842	CUYAH_001622096
CUYAH_000081620	CUYAH_000088847	CUYAH_001622288
CUYAH_000081622	CUYAH_000088848	CUYAH_001629584
CUYAH_000081624	CUYAH_000088851	CUYAH_001633093
CUYAH_000081629	CUYAH_000088852	CUYAH_001633304
CUYAH_000081638	CUYAH_000088856	CUYAH_001633456
CUYAH_000081643	CUYAH_000088857	CUYAH_001633467
CUYAH_000081644	CUYAH_000088858	CUYAH_001633517
CUYAH_000081647	CUYAH_000088860	CUYAH_001633528
CUYAH_000081649	CUYAH_000088861	CUYAH_001633540
CUYAH_000081651	CUYAH_000088867	CUYAH_001633552
CUYAH_000081664	CUYAH_000088887	CUYAH_001633623
CUYAH_000081665	CUYAH_000088888	CUYAH_001633636
CUYAH_000081667	CUYAH_000088889	CUYAH_001633701
CUYAH_000081677	CUYAH_000088890	CUYAH_001633783
CUYAH_000081678	CUYAH_000088891	CUYAH_001633950
CUYAH_000081681	CUYAH_000088892	CUYAH_001674196
CUYAH_000081682	CUYAH_000088893	CUYAH_001688031
CUYAH_000081685	CUYAH_000088894	CUYAH_001714332

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_001714364	CUYAH_001969104	CUYAH_001973556
CUYAH_001714365	CUYAH_001969209	CUYAH_001975876
CUYAH_001714366	CUYAH_001969318	CUYAH_001976025
CUYAH_001714367	CUYAH_001969449	CUYAH_001976049
CUYAH_001714372	CUYAH_001969790	CUYAH_001976073
CUYAH_001714382	CUYAH_001970137	CUYAH_001976075
CUYAH_001714387	CUYAH_001970474	CUYAH_001976080
CUYAH_001714392	CUYAH_001970841	CUYAH_001976084
CUYAH_001714397	CUYAH_001971218	CUYAH_001976086
CUYAH_001714402	CUYAH_001971237	CUYAH_001976089
CUYAH_001714407	CUYAH_001971258	CUYAH_001976092
CUYAH_001714412	CUYAH_001971283	CUYAH_001976095
CUYAH_001714417	CUYAH_001971306	CUYAH_001976098
CUYAH_001714422	CUYAH_001971333	CUYAH_001976101
CUYAH_001714427	CUYAH_001971358	CUYAH_001976105
CUYAH_001714432	CUYAH_001971385	CUYAH_001976111
CUYAH_001714456	CUYAH_001971416	CUYAH_001976113
CUYAH_001714459	CUYAH_001971465	CUYAH_001976119
CUYAH_001714460	CUYAH_001971510	CUYAH_001976122
CUYAH_001738714	CUYAH_001971555	CUYAH_001976126
CUYAH_001747349	CUYAH_001971602	CUYAH_001976129
CUYAH_001747351	CUYAH_001971647	CUYAH_001976132
CUYAH_001749074	CUYAH_001971696	CUYAH_001976136
CUYAH_001759236	CUYAH_001971743	CUYAH_001976141
CUYAH_001759237	CUYAH_001971790	CUYAH_001976145
CUYAH_001764146	CUYAH_001971837	CUYAH_001976150
CUYAH_001776598	CUYAH_001971884	CUYAH_001976153
CUYAH_001776599	CUYAH_001971905	CUYAH_001976157
CUYAH_001830351	CUYAH_001971922	CUYAH_001976160
CUYAH_001830414	CUYAH_001971947	CUYAH_001976164
CUYAH_001830488	CUYAH_001971972	CUYAH_001976170
CUYAH_001830499	CUYAH_001971995	CUYAH_001976172
CUYAH_001830509	CUYAH_001972020	CUYAH_001976177
CUYAH_001830514	CUYAH_001972043	CUYAH_001976180
CUYAH_001830559	CUYAH_001972068	CUYAH_001976183
CUYAH_001830564	CUYAH_001972091	CUYAH_001976187
CUYAH_001830569	CUYAH_001972114	CUYAH_001976191
CUYAH_001830584	CUYAH_001972135	CUYAH_001976195
CUYAH_001830595	CUYAH_001972150	CUYAH_001976200
CUYAH_001830617	CUYAH_001972173	CUYAH_001976204
CUYAH_001830632	CUYAH_001972398	CUYAH_001976207
CUYAH_001830662	CUYAH_001972581	CUYAH_002131087
CUYAH_001830691	CUYAH_001972945	CUYAH_002350945
CUYAH_001830703	CUYAH_001972950	CUYAH_002350946
CUYAH_001967330	CUYAH_001972969	CUYAH_002426012
CUYAH_001967345	CUYAH_001973047	CUYAH_002426048
CUYAH_001967366	CUYAH_001973066	CUYAH_002426079
CUYAH_001967593	CUYAH_001973089	CUYAH_002426108
CUYAH_001967844	CUYAH_001973148	CUYAH_002426189
CUYAH_001968101	CUYAH_001973171	CUYAH_002426221
CUYAH_001968356	CUYAH_001973194	CUYAH_002426252
CUYAH_001969001	CUYAH_001973215	CUYAH_002426280

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_002426281	CUYAH_005962707	CUYAH_005989272
CUYAH_002426282	CUYAH_005962708	CUYAH_005989313
CUYAH_002426283	CUYAH_005968204	CUYAH_007086312
CUYAH_002426284	CUYAH_005968205	CUYAH_008936736
CUYAH_002426285	CUYAH_005973358	CUYAH_008936765
CUYAH_002426286	CUYAH_005973359	CUYAH_008936794
CUYAH_002426287	CUYAH_005978560	CUYAH_008936820
CUYAH_002426288	CUYAH_005978561	CUYAH_008936850
CUYAH_002426289	CUYAH_005984095	CUYAH_008936876
CUYAH_002426290	CUYAH_005984096	CUYAH_008936904
CUYAH_002426291	CUYAH_005984649	CUYAH_008936934
CUYAH_002426292	CUYAH_005984650	CUYAH_008936960
CUYAH_002426293	CUYAH_005984651	CUYAH_008936989
CUYAH_002426294	CUYAH_005984654	CUYAH_008937015
CUYAH_002431495	CUYAH_005984697	CUYAH_008937039
CUYAH_002437029	CUYAH_005984740	CUYAH_008937065
CUYAH_002442182	CUYAH_005984786	CUYAH_008937093
CUYAH_002443574	CUYAH_005984835	CUYAH_008937123
CUYAH_002462961	CUYAH_005984886	CUYAH_008937156
CUYAH_002462967	CUYAH_005984939	CUYAH_008937163
CUYAH_002462968	CUYAH_005984990	CUYAH_008937192
CUYAH_002463771	CUYAH_005984991	CUYAH_008937201
CUYAH_002463798	CUYAH_005984997	CUYAH_008937231
CUYAH_002463984	CUYAH_005985047	CUYAH_008937258
CUYAH_002463987	CUYAH_005985048	CUYAH_008937284
CUYAH_002464963	CUYAH_005985051	CUYAH_008937310
CUYAH_002470477	CUYAH_005985053	CUYAH_008937336
CUYAH_002470480	CUYAH_005985054	CUYAH_008937368
CUYAH_002476044	CUYAH_005985061	CUYAH_008937396
CUYAH_002479896	CUYAH_005985066	CUYAH_008937423
CUYAH_002479898	CUYAH_005985071	CUYAH_008937431
CUYAH_002479899	CUYAH_005985129	CUYAH_008937457
CUYAH_002479900	CUYAH_005985181	CUYAH_008937488
CUYAH_002503169	CUYAH_005985234	CUYAH_008937588
CUYAH_002503170	CUYAH_005985385	CUYAH_008937596
CUYAH_002503171	CUYAH_005985540	CUYAH_008937625
CUYAH_002503172	CUYAH_005985695	CUYAH_008937655
CUYAH_002503173	CUYAH_005985864	CUYAH_008937663
CUYAH_002503174	CUYAH_005986202	CUYAH_008937688
CUYAH_002503176	CUYAH_005986347	CUYAH_008937716
CUYAH_002503213	CUYAH_005986506	CUYAH_008937741
CUYAH_002503214	CUYAH_005986659	CUYAH_008937771
CUYAH_003505168	CUYAH_005986816	CUYAH_008937796
CUYAH_005427516	CUYAH_005986969	CUYAH_008937823
CUYAH_005427517	CUYAH_005987122	CUYAH_008937853
CUYAH_005633194	CUYAH_005987498	CUYAH_008937883
CUYAH_005633195	CUYAH_005987606	CUYAH_008937911
CUYAH_005884403	CUYAH_005987785	CUYAH_008937939
CUYAH_005887098	CUYAH_005988304	CUYAH_008937964
CUYAH_005948300	CUYAH_005988557	CUYAH_008937970
CUYAH_005951070	CUYAH_005988821	CUYAH_008937997
CUYAH_005960039	CUYAH_005989026	CUYAH_008938023

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_008938052	CUYAH_008939454	CUYAH_008940868
CUYAH_008938079	CUYAH_008939481	CUYAH_008940897
CUYAH_008938105	CUYAH_008939509	CUYAH_008940925
CUYAH_008938133	CUYAH_008939536	CUYAH_008940951
CUYAH_008938162	CUYAH_008939563	CUYAH_008940976
CUYAH_008938190	CUYAH_008939590	CUYAH_008941004
CUYAH_008938219	CUYAH_008939620	CUYAH_008941028
CUYAH_008938246	CUYAH_008939629	CUYAH_008941058
CUYAH_008938273	CUYAH_008939656	CUYAH_008941088
CUYAH_008938297	CUYAH_008939684	CUYAH_008941115
CUYAH_008938322	CUYAH_008939709	CUYAH_008941142
CUYAH_008938330	CUYAH_008939737	CUYAH_008941168
CUYAH_008938358	CUYAH_008939762	CUYAH_008941196
CUYAH_008938383	CUYAH_008939770	CUYAH_008941222
CUYAH_008938409	CUYAH_008939799	CUYAH_008941248
CUYAH_008938417	CUYAH_008939826	CUYAH_008941277
CUYAH_008938447	CUYAH_008939852	CUYAH_008941304
CUYAH_008938473	CUYAH_008939880	CUYAH_008941335
CUYAH_008938505	CUYAH_008939888	CUYAH_008941364
CUYAH_008938531	CUYAH_008939915	CUYAH_008941371
CUYAH_008938557	CUYAH_008939944	CUYAH_008941399
CUYAH_008938582	CUYAH_008939974	CUYAH_008941425
CUYAH_008938607	CUYAH_008940000	CUYAH_008941450
CUYAH_008938633	CUYAH_008940028	CUYAH_008941477
CUYAH_008938659	CUYAH_008940038	CUYAH_008941506
CUYAH_008938686	CUYAH_008940063	CUYAH_008941535
CUYAH_008938716	CUYAH_008940089	CUYAH_008941569
CUYAH_008938753	CUYAH_008940097	CUYAH_008941624
CUYAH_008938781	CUYAH_008940132	CUYAH_008941663
CUYAH_008938812	CUYAH_008940159	CUYAH_008941691
CUYAH_008938840	CUYAH_008940189	CUYAH_008941721
CUYAH_008938869	CUYAH_008940223	CUYAH_008941751
CUYAH_008938896	CUYAH_008940250	CUYAH_008941777
CUYAH_008938920	CUYAH_008940275	CUYAH_008941805
CUYAH_008938951	CUYAH_008940327	CUYAH_008941836
CUYAH_008938978	CUYAH_008940364	CUYAH_008941863
CUYAH_008939003	CUYAH_008940391	CUYAH_008941891
CUYAH_008939033	CUYAH_008940421	CUYAH_008941921
CUYAH_008939065	CUYAH_008940447	CUYAH_008941949
CUYAH_008939093	CUYAH_008940513	CUYAH_008941986
CUYAH_008939120	CUYAH_008940546	CUYAH_008942014
CUYAH_008939148	CUYAH_008940569	CUYAH_008942045
CUYAH_008939173	CUYAH_008940597	CUYAH_008942073
CUYAH_008939205	CUYAH_008940624	CUYAH_008942099
CUYAH_008939230	CUYAH_008940653	CUYAH_008942126
CUYAH_008939256	CUYAH_008940681	CUYAH_008942153
CUYAH_008939284	CUYAH_008940711	CUYAH_008942183
CUYAH_008939313	CUYAH_008940740	CUYAH_008942210
CUYAH_008939345	CUYAH_008940750	CUYAH_008942237
CUYAH_008939370	CUYAH_008940782	CUYAH_008942258
CUYAH_008939400	CUYAH_008940807	CUYAH_008942287
CUYAH_008939427	CUYAH_008940838	CUYAH_008942312

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_008942340	CUYAH_008943750	CUYAH_008945259
CUYAH_008942369	CUYAH_008943780	CUYAH_008945287
CUYAH_008942396	CUYAH_008943807	CUYAH_008945319
CUYAH_008942422	CUYAH_008943832	CUYAH_008945342
CUYAH_008942449	CUYAH_008943862	CUYAH_008945369
CUYAH_008942474	CUYAH_008943888	CUYAH_008945377
CUYAH_008942499	CUYAH_008943916	CUYAH_008945386
CUYAH_008942527	CUYAH_008943942	CUYAH_008945414
CUYAH_008942555	CUYAH_008943965	CUYAH_008945444
CUYAH_008942586	CUYAH_008943990	CUYAH_008945473
CUYAH_008942614	CUYAH_008944023	CUYAH_008945502
CUYAH_008942644	CUYAH_008944051	CUYAH_008945531
CUYAH_008942668	CUYAH_008944079	CUYAH_008945558
CUYAH_008942698	CUYAH_008944104	CUYAH_008945586
CUYAH_008942724	CUYAH_008944110	CUYAH_008945611
CUYAH_008942752	CUYAH_008944119	CUYAH_008945626
CUYAH_008942783	CUYAH_008944145	CUYAH_008945656
CUYAH_008942813	CUYAH_008944175	CUYAH_008945685
CUYAH_008942839	CUYAH_008944201	CUYAH_008945713
CUYAH_008942865	CUYAH_008944229	CUYAH_008945738
CUYAH_008942892	CUYAH_008944315	CUYAH_008945766
CUYAH_008942922	CUYAH_008944345	CUYAH_008945798
CUYAH_008942952	CUYAH_008944374	CUYAH_008945823
CUYAH_008942977	CUYAH_008944402	CUYAH_008945851
CUYAH_008943002	CUYAH_008944431	CUYAH_008945881
CUYAH_008943029	CUYAH_008944462	CUYAH_008945919
CUYAH_008943060	CUYAH_008944488	CUYAH_008945949
CUYAH_008943069	CUYAH_008944514	CUYAH_008945977
CUYAH_008943096	CUYAH_008944544	CUYAH_008945985
CUYAH_008943122	CUYAH_008944575	CUYAH_008946012
CUYAH_008943150	CUYAH_008944637	CUYAH_008946034
CUYAH_008943180	CUYAH_008944672	CUYAH_008946062
CUYAH_008943207	CUYAH_008944700	CUYAH_008946098
CUYAH_008943234	CUYAH_008944725	CUYAH_008946129
CUYAH_008943267	CUYAH_008944754	CUYAH_008946157
CUYAH_008943298	CUYAH_008944786	CUYAH_008946185
CUYAH_008943328	CUYAH_008944815	CUYAH_008946215
CUYAH_008943357	CUYAH_008944843	CUYAH_008946244
CUYAH_008943383	CUYAH_008944871	CUYAH_008946271
CUYAH_008943408	CUYAH_008944901	CUYAH_008946461
CUYAH_008943435	CUYAH_008944928	CUYAH_008946491
CUYAH_008943464	CUYAH_008944960	CUYAH_008946520
CUYAH_008943493	CUYAH_008944990	CUYAH_008946528
CUYAH_008943518	CUYAH_008945020	CUYAH_008946556
CUYAH_008943547	CUYAH_008945043	CUYAH_008946584
CUYAH_008943573	CUYAH_008945069	CUYAH_008946613
CUYAH_008943599	CUYAH_008945097	CUYAH_008946643
CUYAH_008943624	CUYAH_008945123	CUYAH_008946673
CUYAH_008943653	CUYAH_008945147	CUYAH_008946700
CUYAH_008943683	CUYAH_008945176	CUYAH_008946727
CUYAH_008943710	CUYAH_008945203	CUYAH_008946755
CUYAH_008943740	CUYAH_008945231	CUYAH_008946780

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_008946808	CUYAH_008948212	CUYAH_008949845
CUYAH_008946833	CUYAH_008948247	CUYAH_008949875
CUYAH_008946859	CUYAH_008948277	CUYAH_008949907
CUYAH_008946886	CUYAH_008948307	CUYAH_008949915
CUYAH_008946914	CUYAH_008948332	CUYAH_008949940
CUYAH_008946934	CUYAH_008948361	CUYAH_008949967
CUYAH_008946964	CUYAH_008948388	CUYAH_008949995
CUYAH_008946997	CUYAH_008948415	CUYAH_008950025
CUYAH_008947027	CUYAH_008948446	CUYAH_008950052
CUYAH_008947053	CUYAH_008948476	CUYAH_008950082
CUYAH_008947079	CUYAH_008948503	CUYAH_008950111
CUYAH_008947115	CUYAH_008948640	CUYAH_008950141
CUYAH_008947142	CUYAH_008948681	CUYAH_008950169
CUYAH_008947173	CUYAH_008948738	CUYAH_008950197
CUYAH_008947199	CUYAH_008948765	CUYAH_008950226
CUYAH_008947227	CUYAH_008948795	CUYAH_008950254
CUYAH_008947255	CUYAH_008948823	CUYAH_008950280
CUYAH_008947283	CUYAH_008948853	CUYAH_008950306
CUYAH_008947313	CUYAH_008948889	CUYAH_008950333
CUYAH_008947344	CUYAH_008948918	CUYAH_008950363
CUYAH_008947373	CUYAH_008948945	CUYAH_008950386
CUYAH_008947406	CUYAH_008948973	CUYAH_008950416
CUYAH_008947430	CUYAH_008949003	CUYAH_008950444
CUYAH_008947456	CUYAH_008949031	CUYAH_008950470
CUYAH_008947493	CUYAH_008949058	CUYAH_008950499
CUYAH_008947521	CUYAH_008949085	CUYAH_008950526
CUYAH_008947548	CUYAH_008949115	CUYAH_008950553
CUYAH_008947576	CUYAH_008949152	CUYAH_008950580
CUYAH_008947602	CUYAH_008949165	CUYAH_008950611
CUYAH_008947632	CUYAH_008949193	CUYAH_008950640
CUYAH_008947664	CUYAH_008949223	CUYAH_008950671
CUYAH_008947692	CUYAH_008949250	CUYAH_008950696
CUYAH_008947722	CUYAH_008949280	CUYAH_008950726
CUYAH_008947749	CUYAH_008949304	CUYAH_008950754
CUYAH_008947757	CUYAH_008949329	CUYAH_008950783
CUYAH_008947787	CUYAH_008949366	CUYAH_008950807
CUYAH_008947813	CUYAH_008949393	CUYAH_008950832
CUYAH_008947839	CUYAH_008949421	CUYAH_008950858
CUYAH_008947848	CUYAH_008949448	CUYAH_008950893
CUYAH_008947876	CUYAH_008949475	CUYAH_008950919
CUYAH_008947902	CUYAH_008949507	CUYAH_008950946
CUYAH_008947930	CUYAH_008949540	CUYAH_008950983
CUYAH_008947951	CUYAH_008949568	CUYAH_008951014
CUYAH_008947982	CUYAH_008949595	CUYAH_008951044
CUYAH_008948008	CUYAH_008949622	CUYAH_008951068
CUYAH_008948036	CUYAH_008949649	CUYAH_008951095
CUYAH_008948063	CUYAH_008949683	CUYAH_008951120
CUYAH_008948092	CUYAH_008949713	CUYAH_008951150
CUYAH_008948101	CUYAH_008949741	CUYAH_008951175
CUYAH_008948126	CUYAH_008949769	CUYAH_008951204
CUYAH_008948152	CUYAH_008949792	CUYAH_008951231
CUYAH_008948181	CUYAH_008949816	CUYAH_008951361

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_008951507	CUYAH_008952952	CUYAH_008954354
CUYAH_008951561	CUYAH_008952978	CUYAH_008954378
CUYAH_008951592	CUYAH_008952997	CUYAH_008954402
CUYAH_008951621	CUYAH_008953024	CUYAH_008954432
CUYAH_008951628	CUYAH_008953049	CUYAH_008954460
CUYAH_008951653	CUYAH_008953077	CUYAH_008954489
CUYAH_008951680	CUYAH_008953105	CUYAH_008954494
CUYAH_008951707	CUYAH_008953113	CUYAH_008954554
CUYAH_008951735	CUYAH_008953140	CUYAH_008954562
CUYAH_008951763	CUYAH_008953165	CUYAH_008954589
CUYAH_008951788	CUYAH_008953189	CUYAH_008954613
CUYAH_008951815	CUYAH_008953217	CUYAH_008954640
CUYAH_008951844	CUYAH_008953244	CUYAH_008954666
CUYAH_008951874	CUYAH_008953272	CUYAH_008954692
CUYAH_008951899	CUYAH_008953301	CUYAH_008954717
CUYAH_008951907	CUYAH_008953308	CUYAH_008954726
CUYAH_008951937	CUYAH_008953336	CUYAH_008954754
CUYAH_008951964	CUYAH_008953365	CUYAH_008954781
CUYAH_008951991	CUYAH_008953394	CUYAH_008954808
CUYAH_008952000	CUYAH_008953422	CUYAH_008954838
CUYAH_008952029	CUYAH_008953448	CUYAH_008954852
CUYAH_008952057	CUYAH_008953474	CUYAH_008954878
CUYAH_008952082	CUYAH_008953502	CUYAH_008954929
CUYAH_008952107	CUYAH_008953528	CUYAH_008954957
CUYAH_008952136	CUYAH_008953554	CUYAH_008954983
CUYAH_008952161	CUYAH_008953583	CUYAH_008955012
CUYAH_008952189	CUYAH_008953650	CUYAH_008955041
CUYAH_008952217	CUYAH_008953679	CUYAH_008955066
CUYAH_008952244	CUYAH_008953707	CUYAH_008955095
CUYAH_008952272	CUYAH_008953733	CUYAH_008955122
CUYAH_008952309	CUYAH_008953761	CUYAH_008955383
CUYAH_008952356	CUYAH_008953784	CUYAH_008955415
CUYAH_008952381	CUYAH_008953787	CUYAH_008955439
CUYAH_008952409	CUYAH_008953841	CUYAH_008955473
CUYAH_008952439	CUYAH_008953866	CUYAH_008955502
CUYAH_008952466	CUYAH_008953891	CUYAH_008955529
CUYAH_008952491	CUYAH_008953918	CUYAH_008955537
CUYAH_008952522	CUYAH_008953944	CUYAH_008955564
CUYAH_008952549	CUYAH_008953969	CUYAH_008955592
CUYAH_008952575	CUYAH_008953996	CUYAH_008955621
CUYAH_008952600	CUYAH_008954022	CUYAH_008955650
CUYAH_008952627	CUYAH_008954045	CUYAH_008955678
CUYAH_008952666	CUYAH_008954070	CUYAH_008955711
CUYAH_008952695	CUYAH_008954097	CUYAH_008955741
CUYAH_008952724	CUYAH_008954124	CUYAH_008955769
CUYAH_008952750	CUYAH_008954151	CUYAH_008955796
CUYAH_008952778	CUYAH_008954178	CUYAH_008955823
CUYAH_008952804	CUYAH_008954209	CUYAH_008955850
CUYAH_008952833	CUYAH_008954238	CUYAH_008955875
CUYAH_008952859	CUYAH_008954264	CUYAH_008955903
CUYAH_008952897	CUYAH_008954292	CUYAH_008955912
CUYAH_008952925	CUYAH_008954325	CUYAH_008955939

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_008955948	CUYAH_008957377	CUYAH_008958789
CUYAH_008955975	CUYAH_008957407	CUYAH_008958815
CUYAH_008956006	CUYAH_008957432	CUYAH_008958842
CUYAH_008956032	CUYAH_008957459	CUYAH_008958867
CUYAH_008956058	CUYAH_008957487	CUYAH_008958893
CUYAH_008956085	CUYAH_008957512	CUYAH_008958919
CUYAH_008956115	CUYAH_008957538	CUYAH_008958945
CUYAH_008956145	CUYAH_008957563	CUYAH_008958972
CUYAH_008956169	CUYAH_008957590	CUYAH_008958999
CUYAH_008956211	CUYAH_008957617	CUYAH_008959026
CUYAH_008956240	CUYAH_008957645	CUYAH_008959053
CUYAH_008956266	CUYAH_008957671	CUYAH_008959079
CUYAH_008956291	CUYAH_008957697	CUYAH_008959107
CUYAH_008956315	CUYAH_008957729	CUYAH_008959135
CUYAH_008956344	CUYAH_008957758	CUYAH_008959165
CUYAH_008956374	CUYAH_008957787	CUYAH_008959191
CUYAH_008956400	CUYAH_008957816	CUYAH_008959218
CUYAH_008956426	CUYAH_008957824	CUYAH_008959243
CUYAH_008956455	CUYAH_008957852	CUYAH_008959269
CUYAH_008956479	CUYAH_008957881	CUYAH_008959296
CUYAH_008956509	CUYAH_008957938	CUYAH_008959321
CUYAH_008956537	CUYAH_008957965	CUYAH_008959351
CUYAH_008956566	CUYAH_008957997	CUYAH_008959378
CUYAH_008956596	CUYAH_008958004	CUYAH_008959407
CUYAH_008956620	CUYAH_008958029	CUYAH_008959435
CUYAH_008956648	CUYAH_008958054	CUYAH_008959462
CUYAH_008956678	CUYAH_008958087	CUYAH_008959489
CUYAH_008956705	CUYAH_008958114	CUYAH_008959520
CUYAH_008956733	CUYAH_008958138	CUYAH_008959548
CUYAH_008956760	CUYAH_008958163	CUYAH_008959575
CUYAH_008956786	CUYAH_008958189	CUYAH_008959601
CUYAH_008956811	CUYAH_008958216	CUYAH_008959628
CUYAH_008956838	CUYAH_008958243	CUYAH_008959655
CUYAH_008956866	CUYAH_008958271	CUYAH_008959685
CUYAH_008956893	CUYAH_008958298	CUYAH_008959713
CUYAH_008956921	CUYAH_008958322	CUYAH_008959740
CUYAH_008956948	CUYAH_008958350	CUYAH_008959770
CUYAH_008956975	CUYAH_008958376	CUYAH_008959798
CUYAH_008956983	CUYAH_008958401	CUYAH_008959828
CUYAH_008957011	CUYAH_008958429	CUYAH_008959852
CUYAH_008957039	CUYAH_008958455	CUYAH_008960324
CUYAH_008957067	CUYAH_008958487	CUYAH_008960414
CUYAH_008957094	CUYAH_008958512	CUYAH_008960440
CUYAH_008957122	CUYAH_008958541	CUYAH_008960468
CUYAH_008957148	CUYAH_008958567	CUYAH_008960497
CUYAH_008957176	CUYAH_008958602	CUYAH_008960525
CUYAH_008957206	CUYAH_008958629	CUYAH_008960552
CUYAH_008957236	CUYAH_008958655	CUYAH_008960580
CUYAH_008957263	CUYAH_008958681	CUYAH_008960607
CUYAH_008957291	CUYAH_008958708	CUYAH_008960633
CUYAH_008957318	CUYAH_008958734	CUYAH_008960661
CUYAH_008957348	CUYAH_008958763	CUYAH_008960688

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_008960697	CUYAH_008962120	CUYAH_008963622
CUYAH_008960724	CUYAH_008962146	CUYAH_008963659
CUYAH_008960750	CUYAH_008962176	CUYAH_008963687
CUYAH_008960777	CUYAH_008962203	CUYAH_008963715
CUYAH_008960806	CUYAH_008962237	CUYAH_008963724
CUYAH_008960833	CUYAH_008962264	CUYAH_008963751
CUYAH_008960861	CUYAH_008962294	CUYAH_008963777
CUYAH_008960888	CUYAH_008962321	CUYAH_008963806
CUYAH_008960931	CUYAH_008962350	CUYAH_008963833
CUYAH_008960959	CUYAH_008962376	CUYAH_008963856
CUYAH_008960997	CUYAH_008962401	CUYAH_008963884
CUYAH_008961024	CUYAH_008962433	CUYAH_008963912
CUYAH_008961051	CUYAH_008962459	CUYAH_008963941
CUYAH_008961080	CUYAH_008962486	CUYAH_008963970
CUYAH_008961105	CUYAH_008962494	CUYAH_008963992
CUYAH_008961132	CUYAH_008962521	CUYAH_008964026
CUYAH_008961160	CUYAH_008962546	CUYAH_008964057
CUYAH_008961188	CUYAH_008962572	CUYAH_008964086
CUYAH_008961214	CUYAH_008962598	CUYAH_008964113
CUYAH_008961239	CUYAH_008962626	CUYAH_008964145
CUYAH_008961266	CUYAH_008962654	CUYAH_008964178
CUYAH_008961275	CUYAH_008962682	CUYAH_008964184
CUYAH_008961305	CUYAH_008962709	CUYAH_008964212
CUYAH_008961332	CUYAH_008962736	CUYAH_008964240
CUYAH_008961366	CUYAH_008962764	CUYAH_008964270
CUYAH_008961392	CUYAH_008962790	CUYAH_008964299
CUYAH_008961419	CUYAH_008962886	CUYAH_008964326
CUYAH_008961445	CUYAH_008962917	CUYAH_008964334
CUYAH_008961476	CUYAH_008962953	CUYAH_008964360
CUYAH_008961502	CUYAH_008962981	CUYAH_008964388
CUYAH_008961528	CUYAH_008963008	CUYAH_008964402
CUYAH_008961555	CUYAH_008963036	CUYAH_008964431
CUYAH_008961582	CUYAH_008963063	CUYAH_008964460
CUYAH_008961623	CUYAH_008963087	CUYAH_008964487
CUYAH_008961651	CUYAH_008963117	CUYAH_008964513
CUYAH_008961678	CUYAH_008963143	CUYAH_008964535
CUYAH_008961705	CUYAH_008963171	CUYAH_008964544
CUYAH_008961731	CUYAH_008963198	CUYAH_008964572
CUYAH_008961761	CUYAH_008963226	CUYAH_008964598
CUYAH_008961772	CUYAH_008963251	CUYAH_008964624
CUYAH_008961798	CUYAH_008963280	CUYAH_008964653
CUYAH_008961826	CUYAH_008963307	CUYAH_008964711
CUYAH_008961855	CUYAH_008963335	CUYAH_008964737
CUYAH_008961882	CUYAH_008963363	CUYAH_008964764
CUYAH_008961911	CUYAH_008963398	CUYAH_008964791
CUYAH_008961921	CUYAH_008963425	CUYAH_008964817
CUYAH_008961949	CUYAH_008963458	CUYAH_008964840
CUYAH_008961978	CUYAH_008963484	CUYAH_008964868
CUYAH_008962006	CUYAH_008963512	CUYAH_008964897
CUYAH_008962033	CUYAH_008963540	CUYAH_008964958
CUYAH_008962062	CUYAH_008963563	CUYAH_008964985
CUYAH_008962090	CUYAH_008963593	CUYAH_008965009

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_008965047	CUYAH_008966411	CUYAH_008967871
CUYAH_008965073	CUYAH_008966439	CUYAH_008967899
CUYAH_008965099	CUYAH_008966469	CUYAH_008967927
CUYAH_008965127	CUYAH_008966498	CUYAH_008967952
CUYAH_008965155	CUYAH_008966525	CUYAH_008967979
CUYAH_008965182	CUYAH_008966553	CUYAH_008968005
CUYAH_008965208	CUYAH_008966581	CUYAH_008968013
CUYAH_008965236	CUYAH_008966615	CUYAH_008968042
CUYAH_008965265	CUYAH_008966643	CUYAH_008968071
CUYAH_008965292	CUYAH_008966673	CUYAH_008968097
CUYAH_008965319	CUYAH_008966705	CUYAH_008968145
CUYAH_008965343	CUYAH_008966733	CUYAH_008968174
CUYAH_008965373	CUYAH_008966740	CUYAH_008968201
CUYAH_008965399	CUYAH_008966769	CUYAH_008968230
CUYAH_008965407	CUYAH_008966812	CUYAH_008968257
CUYAH_008965415	CUYAH_008966839	CUYAH_008968283
CUYAH_008965444	CUYAH_008966869	CUYAH_008968308
CUYAH_008965471	CUYAH_008966897	CUYAH_008968336
CUYAH_008965496	CUYAH_008966905	CUYAH_008968375
CUYAH_008965524	CUYAH_008966933	CUYAH_008968403
CUYAH_008965548	CUYAH_008966965	CUYAH_008968433
CUYAH_008965575	CUYAH_008966989	CUYAH_008968460
CUYAH_008965603	CUYAH_008967014	CUYAH_008968488
CUYAH_008965632	CUYAH_008967041	CUYAH_008968517
CUYAH_008965661	CUYAH_008967070	CUYAH_008968544
CUYAH_008965689	CUYAH_008967098	CUYAH_008968570
CUYAH_008965716	CUYAH_008967126	CUYAH_008968601
CUYAH_008965746	CUYAH_008967153	CUYAH_008968631
CUYAH_008965773	CUYAH_008967178	CUYAH_008968658
CUYAH_008965800	CUYAH_008967206	CUYAH_008968685
CUYAH_008965828	CUYAH_008967233	CUYAH_008968713
CUYAH_008965856	CUYAH_008967263	CUYAH_008968740
CUYAH_008965883	CUYAH_008967293	CUYAH_008968768
CUYAH_008965911	CUYAH_008967322	CUYAH_008968795
CUYAH_008965937	CUYAH_008967348	CUYAH_008968822
CUYAH_008965966	CUYAH_008967375	CUYAH_008968849
CUYAH_008965992	CUYAH_008967403	CUYAH_008968858
CUYAH_008966018	CUYAH_008967428	CUYAH_008968890
CUYAH_008966045	CUYAH_008967506	CUYAH_008968915
CUYAH_008966073	CUYAH_008967523	CUYAH_008968946
CUYAH_008966099	CUYAH_008967551	CUYAH_008968974
CUYAH_008966124	CUYAH_008967560	CUYAH_008968999
CUYAH_008966152	CUYAH_008967590	CUYAH_008969060
CUYAH_008966179	CUYAH_008967617	CUYAH_008969090
CUYAH_008966205	CUYAH_008967647	CUYAH_008969121
CUYAH_008966233	CUYAH_008967674	CUYAH_008969147
CUYAH_008966263	CUYAH_008967699	CUYAH_008969176
CUYAH_008966291	CUYAH_008967733	CUYAH_008969211
CUYAH_008966300	CUYAH_008967760	CUYAH_008969241
CUYAH_008966328	CUYAH_008967789	CUYAH_008969271
CUYAH_008966354	CUYAH_008967817	CUYAH_008969295
CUYAH_008966382	CUYAH_008967847	CUYAH_008969330

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_008969336	CUYAH_008970691	CUYAH_008971973
CUYAH_008969363	CUYAH_008970716	CUYAH_008972001
CUYAH_008969391	CUYAH_008970743	CUYAH_008972029
CUYAH_008969414	CUYAH_008970768	CUYAH_008972038
CUYAH_008969442	CUYAH_008970800	CUYAH_008972066
CUYAH_008969450	CUYAH_008970830	CUYAH_008972093
CUYAH_008969481	CUYAH_008970858	CUYAH_008972121
CUYAH_008969506	CUYAH_008970883	CUYAH_008972150
CUYAH_008969535	CUYAH_008970910	CUYAH_008972178
CUYAH_008969565	CUYAH_008970938	CUYAH_008972205
CUYAH_008969593	CUYAH_008970965	CUYAH_008972232
CUYAH_008969625	CUYAH_008970973	CUYAH_008972262
CUYAH_008969656	CUYAH_008970999	CUYAH_008972289
CUYAH_008969683	CUYAH_008971007	CUYAH_008972316
CUYAH_008969707	CUYAH_008971034	CUYAH_008972343
CUYAH_008969733	CUYAH_008971063	CUYAH_008972367
CUYAH_008969763	CUYAH_008971089	CUYAH_008972394
CUYAH_008969801	CUYAH_008971130	CUYAH_008972419
CUYAH_008969831	CUYAH_008971154	CUYAH_008972449
CUYAH_008969859	CUYAH_008971179	CUYAH_008972476
CUYAH_008969889	CUYAH_008971207	CUYAH_008972522
CUYAH_008969917	CUYAH_008971233	CUYAH_008972550
CUYAH_008969925	CUYAH_008971242	CUYAH_008972578
CUYAH_008969953	CUYAH_008971269	CUYAH_008972606
CUYAH_008969980	CUYAH_008971297	CUYAH_008972634
CUYAH_008969989	CUYAH_008971324	CUYAH_008972658
CUYAH_008970022	CUYAH_008971349	CUYAH_008972685
CUYAH_008970052	CUYAH_008971376	CUYAH_008972714
CUYAH_008970079	CUYAH_008971404	CUYAH_008972740
CUYAH_008970109	CUYAH_008971412	CUYAH_008972767
CUYAH_008970137	CUYAH_008971442	CUYAH_008972794
CUYAH_008970166	CUYAH_008971450	CUYAH_008972821
CUYAH_008970196	CUYAH_008971460	CUYAH_008972848
CUYAH_008970223	CUYAH_008971487	CUYAH_008972876
CUYAH_008970251	CUYAH_008971513	CUYAH_008972905
CUYAH_008970278	CUYAH_008971521	CUYAH_008972934
CUYAH_008970304	CUYAH_008971549	CUYAH_008972963
CUYAH_008970332	CUYAH_008971579	CUYAH_008972990
CUYAH_008970356	CUYAH_008971605	CUYAH_008973017
CUYAH_008970383	CUYAH_008971634	CUYAH_008973042
CUYAH_008970410	CUYAH_008971662	CUYAH_008973078
CUYAH_008970450	CUYAH_008971690	CUYAH_008973104
CUYAH_008970477	CUYAH_008971715	CUYAH_008973131
CUYAH_008970486	CUYAH_008971759	CUYAH_008973160
CUYAH_008970513	CUYAH_008971787	CUYAH_008973188
CUYAH_008970522	CUYAH_008971816	CUYAH_008973219
CUYAH_008970546	CUYAH_008971823	CUYAH_008973244
CUYAH_008970553	CUYAH_008971855	CUYAH_008973271
CUYAH_008970588	CUYAH_008971880	CUYAH_008973305
CUYAH_008970612	CUYAH_008971914	CUYAH_008973336
CUYAH_008970642	CUYAH_008971942	CUYAH_008973360
CUYAH_008970667	CUYAH_008971968	CUYAH_008973397

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_008973428	CUYAH_008974827	CUYAH_008976281
CUYAH_008973455	CUYAH_008974853	CUYAH_008976322
CUYAH_008973493	CUYAH_008974884	CUYAH_008976351
CUYAH_008973520	CUYAH_008974911	CUYAH_008976378
CUYAH_008973548	CUYAH_008974937	CUYAH_008976408
CUYAH_008973575	CUYAH_008974968	CUYAH_008976427
CUYAH_008973604	CUYAH_008974998	CUYAH_008976457
CUYAH_008973629	CUYAH_008975024	CUYAH_008976465
CUYAH_008973655	CUYAH_008975051	CUYAH_008976492
CUYAH_008973681	CUYAH_008975078	CUYAH_008976519
CUYAH_008973709	CUYAH_008975106	CUYAH_008976547
CUYAH_008973739	CUYAH_008975134	CUYAH_008976578
CUYAH_008973775	CUYAH_008975162	CUYAH_008976606
CUYAH_008973802	CUYAH_008975189	CUYAH_008976635
CUYAH_008973832	CUYAH_008975219	CUYAH_008976664
CUYAH_008973853	CUYAH_008975259	CUYAH_008976692
CUYAH_008973888	CUYAH_008975299	CUYAH_008976721
CUYAH_008973916	CUYAH_008975337	CUYAH_008976756
CUYAH_008973945	CUYAH_008975346	CUYAH_008976788
CUYAH_008973975	CUYAH_008975375	CUYAH_008976816
CUYAH_008974015	CUYAH_008975403	CUYAH_008976846
CUYAH_008974045	CUYAH_008975431	CUYAH_008976878
CUYAH_008974072	CUYAH_008975459	CUYAH_008976907
CUYAH_008974099	CUYAH_008975488	CUYAH_008976937
CUYAH_008974128	CUYAH_008975515	CUYAH_008976963
CUYAH_008974159	CUYAH_008975543	CUYAH_008976993
CUYAH_008974184	CUYAH_008975570	CUYAH_008977020
CUYAH_008974216	CUYAH_008975596	CUYAH_008977048
CUYAH_008974224	CUYAH_008975623	CUYAH_008977074
CUYAH_008974248	CUYAH_008975651	CUYAH_008977081
CUYAH_008974275	CUYAH_008975679	CUYAH_008977109
CUYAH_008974304	CUYAH_008975689	CUYAH_008977136
CUYAH_008974334	CUYAH_008975717	CUYAH_008977162
CUYAH_008974363	CUYAH_008975743	CUYAH_008977191
CUYAH_008974391	CUYAH_008975770	CUYAH_008977220
CUYAH_008974417	CUYAH_008975799	CUYAH_008977249
CUYAH_008974446	CUYAH_008975833	CUYAH_008977279
CUYAH_008974474	CUYAH_008975860	CUYAH_008977310
CUYAH_008974501	CUYAH_008975887	CUYAH_008977340
CUYAH_008974529	CUYAH_008975915	CUYAH_008977367
CUYAH_008974559	CUYAH_008975942	CUYAH_008977395
CUYAH_008974567	CUYAH_008975972	CUYAH_008977428
CUYAH_008974597	CUYAH_008976000	CUYAH_008977456
CUYAH_008974624	CUYAH_008976028	CUYAH_008977483
CUYAH_008974643	CUYAH_008976056	CUYAH_008977509
CUYAH_008974653	CUYAH_008976088	CUYAH_008977541
CUYAH_008974660	CUYAH_008976116	CUYAH_008977568
CUYAH_008974686	CUYAH_008976142	CUYAH_008977602
CUYAH_008974711	CUYAH_008976169	CUYAH_008977629
CUYAH_008974736	CUYAH_008976197	CUYAH_008977654
CUYAH_008974765	CUYAH_008976224	CUYAH_008977662
CUYAH_008974801	CUYAH_008976250	CUYAH_008977694

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_008977723	CUYAH_008979169	CUYAH_008980829
CUYAH_008977731	CUYAH_008979178	CUYAH_008980855
CUYAH_008977758	CUYAH_008979206	CUYAH_008980884
CUYAH_008977789	CUYAH_008979233	CUYAH_008980919
CUYAH_008977817	CUYAH_008979258	CUYAH_008980945
CUYAH_008977844	CUYAH_008979292	CUYAH_008980973
CUYAH_008977872	CUYAH_008979322	CUYAH_008981002
CUYAH_008977900	CUYAH_008979350	CUYAH_008981016
CUYAH_008977927	CUYAH_008979378	CUYAH_008981044
CUYAH_008977957	CUYAH_008979406	CUYAH_008981073
CUYAH_008977985	CUYAH_008979525	CUYAH_008981110
CUYAH_008978013	CUYAH_008979557	CUYAH_008981139
CUYAH_008978042	CUYAH_008979582	CUYAH_008981171
CUYAH_008978071	CUYAH_008979608	CUYAH_008981196
CUYAH_008978098	CUYAH_008979640	CUYAH_008981226
CUYAH_008978127	CUYAH_008979783	CUYAH_008981253
CUYAH_008978135	CUYAH_008979813	CUYAH_008981280
CUYAH_008978164	CUYAH_008979842	CUYAH_008981308
CUYAH_008978192	CUYAH_008979868	CUYAH_008981335
CUYAH_008978220	CUYAH_008979895	CUYAH_008981361
CUYAH_008978249	CUYAH_008979925	CUYAH_008981391
CUYAH_008978275	CUYAH_008979951	CUYAH_008981398
CUYAH_008978302	CUYAH_008979980	CUYAH_008981427
CUYAH_008978329	CUYAH_008980007	CUYAH_008981485
CUYAH_008978356	CUYAH_008980035	CUYAH_008981511
CUYAH_008978385	CUYAH_008980062	CUYAH_008981540
CUYAH_008978416	CUYAH_008980087	CUYAH_008981548
CUYAH_008978443	CUYAH_008980116	CUYAH_008981576
CUYAH_008978472	CUYAH_008980143	CUYAH_008981606
CUYAH_008978508	CUYAH_008980171	CUYAH_008981633
CUYAH_008978535	CUYAH_008980198	CUYAH_008981661
CUYAH_008978563	CUYAH_008980232	CUYAH_008981669
CUYAH_008978591	CUYAH_008980260	CUYAH_008981700
CUYAH_008978619	CUYAH_008980288	CUYAH_008981726
CUYAH_008978650	CUYAH_008980316	CUYAH_008981754
CUYAH_008978679	CUYAH_008980342	CUYAH_008981781
CUYAH_008978707	CUYAH_008980370	CUYAH_008981807
CUYAH_008978742	CUYAH_008980397	CUYAH_008981836
CUYAH_008978770	CUYAH_008980428	CUYAH_008981863
CUYAH_008978798	CUYAH_008980455	CUYAH_008981890
CUYAH_008978825	CUYAH_008980483	CUYAH_008981919
CUYAH_008978854	CUYAH_008980520	CUYAH_008981949
CUYAH_008978882	CUYAH_008980549	CUYAH_008981977
CUYAH_008978910	CUYAH_008980578	CUYAH_008982005
CUYAH_008978940	CUYAH_008980607	CUYAH_008982035
CUYAH_008978971	CUYAH_008980634	CUYAH_008982050
CUYAH_008978998	CUYAH_008980661	CUYAH_008982078
CUYAH_008979030	CUYAH_008980690	CUYAH_008982105
CUYAH_008979060	CUYAH_008980716	CUYAH_008982132
CUYAH_008979085	CUYAH_008980746	CUYAH_008982168
CUYAH_008979114	CUYAH_008980771	CUYAH_008982195
CUYAH_008979141	CUYAH_008980800	CUYAH_008982220

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_008982244	CUYAH_008983661	CUYAH_008985073
CUYAH_008982271	CUYAH_008983689	CUYAH_008985100
CUYAH_008982299	CUYAH_008983718	CUYAH_008985129
CUYAH_008982325	CUYAH_008983747	CUYAH_008985159
CUYAH_008982353	CUYAH_008983773	CUYAH_008985167
CUYAH_008982380	CUYAH_008983799	CUYAH_008985195
CUYAH_008982406	CUYAH_008983827	CUYAH_008985220
CUYAH_008982433	CUYAH_008983858	CUYAH_008985248
CUYAH_008982463	CUYAH_008983885	CUYAH_008985278
CUYAH_008982490	CUYAH_008983914	CUYAH_008985287
CUYAH_008982518	CUYAH_008983943	CUYAH_008985316
CUYAH_008982545	CUYAH_008983951	CUYAH_008985341
CUYAH_008982575	CUYAH_008983979	CUYAH_008985369
CUYAH_008982605	CUYAH_008984007	CUYAH_008985394
CUYAH_008982638	CUYAH_008984035	CUYAH_008985423
CUYAH_008982666	CUYAH_008984062	CUYAH_008985451
CUYAH_008982692	CUYAH_008984086	CUYAH_008985477
CUYAH_008982721	CUYAH_008984113	CUYAH_008985505
CUYAH_008982746	CUYAH_008984142	CUYAH_008985530
CUYAH_008982773	CUYAH_008984170	CUYAH_008985556
CUYAH_008982801	CUYAH_008984200	CUYAH_008985586
CUYAH_008982827	CUYAH_008984226	CUYAH_008985612
CUYAH_008982853	CUYAH_008984251	CUYAH_008985640
CUYAH_008982880	CUYAH_008984278	CUYAH_008985666
CUYAH_008982908	CUYAH_008984305	CUYAH_008985693
CUYAH_008982935	CUYAH_008984332	CUYAH_008985717
CUYAH_008982962	CUYAH_008984360	CUYAH_008985746
CUYAH_008982995	CUYAH_008984388	CUYAH_008985773
CUYAH_008983022	CUYAH_008984433	CUYAH_008985801
CUYAH_008983054	CUYAH_008984465	CUYAH_008985827
CUYAH_008983082	CUYAH_008984494	CUYAH_008985854
CUYAH_008983110	CUYAH_008984502	CUYAH_008985883
CUYAH_008983136	CUYAH_008984531	CUYAH_008986028
CUYAH_008983163	CUYAH_008984557	CUYAH_008986057
CUYAH_008983194	CUYAH_008984587	CUYAH_008986085
CUYAH_008983223	CUYAH_008984614	CUYAH_008986113
CUYAH_008983255	CUYAH_008984643	CUYAH_008986143
CUYAH_008983285	CUYAH_008984670	CUYAH_008986172
CUYAH_008983314	CUYAH_008984699	CUYAH_008986180
CUYAH_008983343	CUYAH_008984729	CUYAH_008986209
CUYAH_008983372	CUYAH_008984758	CUYAH_008986275
CUYAH_008983398	CUYAH_008984782	CUYAH_008986284
CUYAH_008983427	CUYAH_008984810	CUYAH_008986311
CUYAH_008983453	CUYAH_008984837	CUYAH_008986338
CUYAH_008983461	CUYAH_008984864	CUYAH_008986366
CUYAH_008983491	CUYAH_008984892	CUYAH_008986395
CUYAH_008983516	CUYAH_008984899	CUYAH_008986422
CUYAH_008983525	CUYAH_008984929	CUYAH_008986448
CUYAH_008983553	CUYAH_008984958	CUYAH_008986476
CUYAH_008983580	CUYAH_008984985	CUYAH_008986504
CUYAH_008983606	CUYAH_008985014	CUYAH_008986533
CUYAH_008983633	CUYAH_008985044	CUYAH_008986561

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_008986589	CUYAH_008988102	CUYAH_008989495
CUYAH_008986616	CUYAH_008988131	CUYAH_008989521
CUYAH_008986642	CUYAH_008988155	CUYAH_008989550
CUYAH_008986669	CUYAH_008988186	CUYAH_008989578
CUYAH_008986694	CUYAH_008988216	CUYAH_008989604
CUYAH_008986712	CUYAH_008988224	CUYAH_008989631
CUYAH_008986739	CUYAH_008988251	CUYAH_008989657
CUYAH_008986766	CUYAH_008988289	CUYAH_008989685
CUYAH_008986791	CUYAH_008988318	CUYAH_008989712
CUYAH_008986818	CUYAH_008988344	CUYAH_008989740
CUYAH_008986842	CUYAH_008988376	CUYAH_008989748
CUYAH_008986866	CUYAH_008988407	CUYAH_008989775
CUYAH_008986890	CUYAH_008988414	CUYAH_008989810
CUYAH_008986914	CUYAH_008988442	CUYAH_008989839
CUYAH_008986946	CUYAH_008988469	CUYAH_008989865
CUYAH_008986974	CUYAH_008988499	CUYAH_008989891
CUYAH_008986993	CUYAH_008988526	CUYAH_008989919
CUYAH_008987037	CUYAH_008988554	CUYAH_008989948
CUYAH_008987069	CUYAH_008988582	CUYAH_008989974
CUYAH_008987096	CUYAH_008988608	CUYAH_008989987
CUYAH_008987123	CUYAH_008988634	CUYAH_008990017
CUYAH_008987151	CUYAH_008988662	CUYAH_008990047
CUYAH_008987177	CUYAH_008988691	CUYAH_008990074
CUYAH_008987207	CUYAH_008988720	CUYAH_008990104
CUYAH_008987230	CUYAH_008988746	CUYAH_008990112
CUYAH_008987260	CUYAH_008988778	CUYAH_008990144
CUYAH_008987287	CUYAH_008988808	CUYAH_008990175
CUYAH_008987312	CUYAH_008988840	CUYAH_008990204
CUYAH_008987320	CUYAH_008988870	CUYAH_008990234
CUYAH_008987347	CUYAH_008988898	CUYAH_008990259
CUYAH_008987387	CUYAH_008988925	CUYAH_008990287
CUYAH_008987506	CUYAH_008988955	CUYAH_008990313
CUYAH_008987536	CUYAH_008988962	CUYAH_008990343
CUYAH_008987566	CUYAH_008988988	CUYAH_008990372
CUYAH_008987594	CUYAH_008989015	CUYAH_008990397
CUYAH_008987627	CUYAH_008989041	CUYAH_008990446
CUYAH_008987653	CUYAH_008989071	CUYAH_008990476
CUYAH_008987684	CUYAH_008989098	CUYAH_008990508
CUYAH_008987710	CUYAH_008989127	CUYAH_008990536
CUYAH_008987737	CUYAH_008989154	CUYAH_008990562
CUYAH_008987767	CUYAH_008989182	CUYAH_008990590
CUYAH_008987792	CUYAH_008989211	CUYAH_008990617
CUYAH_008987823	CUYAH_008989235	CUYAH_008990644
CUYAH_008987830	CUYAH_008989268	CUYAH_008990671
CUYAH_008987871	CUYAH_008989295	CUYAH_008990700
CUYAH_008987898	CUYAH_008989321	CUYAH_008990707
CUYAH_008987924	CUYAH_008989329	CUYAH_008990732
CUYAH_008987952	CUYAH_008989356	CUYAH_008990759
CUYAH_008987978	CUYAH_008989383	CUYAH_008990789
CUYAH_008988004	CUYAH_008989408	CUYAH_008990816
CUYAH_008988032	CUYAH_008989433	CUYAH_008990825
CUYAH_008988066	CUYAH_008989461	CUYAH_008990859

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_008990887	CUYAH_008992291	CUYAH_008993781
CUYAH_008990916	CUYAH_008992323	CUYAH_008993810
CUYAH_008990942	CUYAH_008992352	CUYAH_008993837
CUYAH_008990972	CUYAH_008992378	CUYAH_008993870
CUYAH_008990999	CUYAH_008992404	CUYAH_008993901
CUYAH_008991025	CUYAH_008992458	CUYAH_008993929
CUYAH_008991052	CUYAH_008992465	CUYAH_008993958
CUYAH_008991059	CUYAH_008992490	CUYAH_008993988
CUYAH_008991089	CUYAH_008992518	CUYAH_008994015
CUYAH_008991118	CUYAH_008992547	CUYAH_008994044
CUYAH_008991143	CUYAH_008992577	CUYAH_008994073
CUYAH_008991173	CUYAH_008992603	CUYAH_008994103
CUYAH_008991200	CUYAH_008992627	CUYAH_008994136
CUYAH_008991208	CUYAH_008992655	CUYAH_008994163
CUYAH_008991235	CUYAH_008992681	CUYAH_008994189
CUYAH_008991262	CUYAH_008992710	CUYAH_008994217
CUYAH_008991288	CUYAH_008992740	CUYAH_008994244
CUYAH_008991316	CUYAH_008992768	CUYAH_008994272
CUYAH_008991342	CUYAH_008992795	CUYAH_008994303
CUYAH_008991365	CUYAH_008992820	CUYAH_008994332
CUYAH_008991393	CUYAH_008992845	CUYAH_008994360
CUYAH_008991421	CUYAH_008992872	CUYAH_008994391
CUYAH_008991451	CUYAH_008992902	CUYAH_008994417
CUYAH_008991478	CUYAH_008992930	CUYAH_008994444
CUYAH_008991509	CUYAH_008992960	CUYAH_008994472
CUYAH_008991540	CUYAH_008992990	CUYAH_008994501
CUYAH_008991571	CUYAH_008992997	CUYAH_008994528
CUYAH_008991598	CUYAH_008993037	CUYAH_008994583
CUYAH_008991627	CUYAH_008993061	CUYAH_008994604
CUYAH_008991649	CUYAH_008993092	CUYAH_008994636
CUYAH_008991678	CUYAH_008993122	CUYAH_008994665
CUYAH_008991707	CUYAH_008993152	CUYAH_008994692
CUYAH_008991736	CUYAH_008993161	CUYAH_008994720
CUYAH_008991764	CUYAH_008993189	CUYAH_008994750
CUYAH_008991792	CUYAH_008993216	CUYAH_008994777
CUYAH_008991826	CUYAH_008993245	CUYAH_008994804
CUYAH_008991864	CUYAH_008993272	CUYAH_008994831
CUYAH_008991892	CUYAH_008993299	CUYAH_008994860
CUYAH_008991920	CUYAH_008993324	CUYAH_008994889
CUYAH_008991950	CUYAH_008993350	CUYAH_008994918
CUYAH_008991978	CUYAH_008993377	CUYAH_008994933
CUYAH_008992009	CUYAH_008993408	CUYAH_008994959
CUYAH_008992036	CUYAH_008993437	CUYAH_008994985
CUYAH_008992064	CUYAH_008993546	CUYAH_008995012
CUYAH_008992073	CUYAH_008993599	CUYAH_008995040
CUYAH_008992100	CUYAH_008993628	CUYAH_008995070
CUYAH_008992130	CUYAH_008993636	CUYAH_008995097
CUYAH_008992158	CUYAH_008993662	CUYAH_008995124
CUYAH_008992184	CUYAH_008993671	CUYAH_008995152
CUYAH_008992208	CUYAH_008993700	CUYAH_008995179
CUYAH_008992226	CUYAH_008993730	CUYAH_008995204
CUYAH_008992255	CUYAH_008993755	CUYAH_008995230

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_008995256	CUYAH_008996827	CUYAH_008998160
CUYAH_008995281	CUYAH_008996852	CUYAH_008998188
CUYAH_008995310	CUYAH_008996859	CUYAH_008998216
CUYAH_008995339	CUYAH_008996890	CUYAH_008998244
CUYAH_008995364	CUYAH_008996918	CUYAH_008998271
CUYAH_008995391	CUYAH_008996950	CUYAH_008998296
CUYAH_008995412	CUYAH_008996979	CUYAH_008998319
CUYAH_008995417	CUYAH_008997008	CUYAH_008998349
CUYAH_008995445	CUYAH_008997035	CUYAH_008998380
CUYAH_008995452	CUYAH_008997060	CUYAH_008998407
CUYAH_008995480	CUYAH_008997086	CUYAH_008998415
CUYAH_008995510	CUYAH_008997113	CUYAH_008998445
CUYAH_008995539	CUYAH_008997120	CUYAH_008998473
CUYAH_008995563	CUYAH_008997147	CUYAH_008998502
CUYAH_008995591	CUYAH_008997175	CUYAH_008998579
CUYAH_008995617	CUYAH_008997200	CUYAH_008998583
CUYAH_008995625	CUYAH_008997232	CUYAH_008998748
CUYAH_008995660	CUYAH_008997259	CUYAH_008998778
CUYAH_008995689	CUYAH_008997288	CUYAH_008998809
CUYAH_008995697	CUYAH_008997294	CUYAH_008998839
CUYAH_008995722	CUYAH_008997324	CUYAH_008998869
CUYAH_008995756	CUYAH_008997353	CUYAH_008998876
CUYAH_008995785	CUYAH_008997380	CUYAH_008998906
CUYAH_008995814	CUYAH_008997407	CUYAH_008998932
CUYAH_008995839	CUYAH_008997438	CUYAH_008998953
CUYAH_008995869	CUYAH_008997465	CUYAH_008998984
CUYAH_008995896	CUYAH_008997471	CUYAH_008999013
CUYAH_008995903	CUYAH_008997501	CUYAH_008999039
CUYAH_008996157	CUYAH_008997528	CUYAH_008999070
CUYAH_008996185	CUYAH_008997556	CUYAH_008999098
CUYAH_008996212	CUYAH_008997586	CUYAH_008999132
CUYAH_008996240	CUYAH_008997614	CUYAH_008999140
CUYAH_008996266	CUYAH_008997646	CUYAH_008999148
CUYAH_008996296	CUYAH_008997673	CUYAH_008999176
CUYAH_008996321	CUYAH_008997700	CUYAH_008999203
CUYAH_008996349	CUYAH_008997726	CUYAH_008999230
CUYAH_008996376	CUYAH_008997757	CUYAH_008999257
CUYAH_008996406	CUYAH_008997766	CUYAH_008999285
CUYAH_008996437	CUYAH_008997793	CUYAH_008999311
CUYAH_008996462	CUYAH_008997820	CUYAH_008999339
CUYAH_008996489	CUYAH_008997844	CUYAH_008999366
CUYAH_008996518	CUYAH_008997873	CUYAH_008999375
CUYAH_008996544	CUYAH_008997903	CUYAH_008999400
CUYAH_008996576	CUYAH_008997911	CUYAH_008999430
CUYAH_008996605	CUYAH_008997935	CUYAH_008999462
CUYAH_008996632	CUYAH_008997962	CUYAH_008999489
CUYAH_008996659	CUYAH_008997987	CUYAH_008999519
CUYAH_008996688	CUYAH_008998014	CUYAH_008999548
CUYAH_008996716	CUYAH_008998042	CUYAH_008999578
CUYAH_008996738	CUYAH_008998068	CUYAH_008999587
CUYAH_008996764	CUYAH_008998101	CUYAH_008999595
CUYAH_008996791	CUYAH_008998132	CUYAH_008999624

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_008999631	CUYAH_009000977	CUYAH_009002745
CUYAH_008999656	CUYAH_009001004	CUYAH_009002774
CUYAH_008999682	CUYAH_009001032	CUYAH_009002783
CUYAH_008999709	CUYAH_009001059	CUYAH_009002817
CUYAH_008999741	CUYAH_009001066	CUYAH_009002844
CUYAH_008999762	CUYAH_009001093	CUYAH_009002872
CUYAH_008999791	CUYAH_009001118	CUYAH_009002903
CUYAH_008999822	CUYAH_009001147	CUYAH_009002931
CUYAH_008999843	CUYAH_009001173	CUYAH_009002959
CUYAH_008999870	CUYAH_009001203	CUYAH_009002984
CUYAH_008999902	CUYAH_009001229	CUYAH_009003013
CUYAH_008999930	CUYAH_009001237	CUYAH_009003147
CUYAH_008999957	CUYAH_009001265	CUYAH_009003178
CUYAH_008999985	CUYAH_009001294	CUYAH_009003202
CUYAH_009000019	CUYAH_009001319	CUYAH_009003228
CUYAH_009000048	CUYAH_009001327	CUYAH_009003235
CUYAH_009000078	CUYAH_009001356	CUYAH_009003265
CUYAH_009000106	CUYAH_009001385	CUYAH_009003272
CUYAH_009000133	CUYAH_009001411	CUYAH_009003302
CUYAH_009000160	CUYAH_009001441	CUYAH_009003329
CUYAH_009000188	CUYAH_009001469	CUYAH_009003356
CUYAH_009000217	CUYAH_009001499	CUYAH_009003391
CUYAH_009000244	CUYAH_009001526	CUYAH_009003418
CUYAH_009000272	CUYAH_009001553	CUYAH_009003446
CUYAH_009000301	CUYAH_009001561	CUYAH_009003472
CUYAH_009000329	CUYAH_009001588	CUYAH_009003480
CUYAH_009000337	CUYAH_009001615	CUYAH_009003507
CUYAH_009000363	CUYAH_009001642	CUYAH_009003535
CUYAH_009000388	CUYAH_009001649	CUYAH_009003563
CUYAH_009000415	CUYAH_009001673	CUYAH_009003590
CUYAH_009000441	CUYAH_009001702	CUYAH_009003599
CUYAH_009000466	CUYAH_009001728	CUYAH_009003625
CUYAH_009000491	CUYAH_009002146	CUYAH_009003650
CUYAH_009000515	CUYAH_009002284	CUYAH_009003658
CUYAH_009000540	CUYAH_009002312	CUYAH_009003685
CUYAH_009000570	CUYAH_009002338	CUYAH_009003712
CUYAH_009000599	CUYAH_009002367	CUYAH_009003738
CUYAH_009000627	CUYAH_009002395	CUYAH_009003761
CUYAH_009000656	CUYAH_009002427	CUYAH_009003790
CUYAH_009000686	CUYAH_009002433	CUYAH_009003820
CUYAH_009000711	CUYAH_009002441	CUYAH_009003851
CUYAH_009000741	CUYAH_009002470	CUYAH_009003859
CUYAH_009000748	CUYAH_009002495	CUYAH_009003866
CUYAH_009000755	CUYAH_009002519	CUYAH_009003892
CUYAH_009000780	CUYAH_009002548	CUYAH_009003922
CUYAH_009000808	CUYAH_009002574	CUYAH_009003948
CUYAH_009000835	CUYAH_009002603	CUYAH_009003955
CUYAH_009000865	CUYAH_009002630	CUYAH_009003987
CUYAH_009000892	CUYAH_009002657	CUYAH_009004016
CUYAH_009000922	CUYAH_009002682	CUYAH_009004044
CUYAH_009000929	CUYAH_009002690	CUYAH_009004052
CUYAH_009000953	CUYAH_009002716	CUYAH_009004078

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_009004106	CUYAH_009005363	CUYAH_009006709
CUYAH_009004133	CUYAH_009005377	CUYAH_009006736
CUYAH_009004163	CUYAH_009005407	CUYAH_009006763
CUYAH_009004170	CUYAH_009005434	CUYAH_009006792
CUYAH_009004198	CUYAH_009005461	CUYAH_009006805
CUYAH_009004226	CUYAH_009005469	CUYAH_009006834
CUYAH_009004253	CUYAH_009005476	CUYAH_009006848
CUYAH_009004282	CUYAH_009005508	CUYAH_009006882
CUYAH_009004289	CUYAH_009005515	CUYAH_009006912
CUYAH_009004316	CUYAH_009005524	CUYAH_009006939
CUYAH_009004351	CUYAH_009005551	CUYAH_009006967
CUYAH_009004379	CUYAH_009005578	CUYAH_009007040
CUYAH_009004402	CUYAH_009005621	CUYAH_009007069
CUYAH_009004427	CUYAH_009005655	CUYAH_009007100
CUYAH_009004457	CUYAH_009005680	CUYAH_009007108
CUYAH_009004465	CUYAH_009005709	CUYAH_009007136
CUYAH_009004504	CUYAH_009005734	CUYAH_009007164
CUYAH_009004534	CUYAH_009005742	CUYAH_009007192
CUYAH_009004557	CUYAH_009005769	CUYAH_009007221
CUYAH_009004589	CUYAH_009005798	CUYAH_009007249
CUYAH_009004616	CUYAH_009005826	CUYAH_009007277
CUYAH_009004646	CUYAH_009005833	CUYAH_009007292
CUYAH_009004673	CUYAH_009005868	CUYAH_009007300
CUYAH_009004703	CUYAH_009005876	CUYAH_009007327
CUYAH_009004710	CUYAH_009005903	CUYAH_009007354
CUYAH_009004736	CUYAH_009005930	CUYAH_009007381
CUYAH_009004767	CUYAH_009005957	CUYAH_009007404
CUYAH_009004796	CUYAH_009005992	CUYAH_009007429
CUYAH_009004804	CUYAH_009006020	CUYAH_009007459
CUYAH_009004832	CUYAH_009006046	CUYAH_009007487
CUYAH_009004864	CUYAH_009006074	CUYAH_009007513
CUYAH_009004870	CUYAH_009006102	CUYAH_009007540
CUYAH_009004897	CUYAH_009006132	CUYAH_009007568
CUYAH_009004925	CUYAH_009006162	CUYAH_009007595
CUYAH_009004955	CUYAH_009006188	CUYAH_009007609
CUYAH_009004983	CUYAH_009006219	CUYAH_009007617
CUYAH_009005012	CUYAH_009006249	CUYAH_009007649
CUYAH_009005019	CUYAH_009006279	CUYAH_009007676
CUYAH_009005044	CUYAH_009006307	CUYAH_009007705
CUYAH_009005071	CUYAH_009006336	CUYAH_009007733
CUYAH_009005103	CUYAH_009006362	CUYAH_009007764
CUYAH_009005132	CUYAH_009006389	CUYAH_009007790
CUYAH_009005154	CUYAH_009006465	CUYAH_009007796
CUYAH_009005184	CUYAH_009006493	CUYAH_009007803
CUYAH_009005214	CUYAH_009006520	CUYAH_009007833
CUYAH_009005221	CUYAH_009006549	CUYAH_009007840
CUYAH_009005234	CUYAH_009006564	CUYAH_009007867
CUYAH_009005258	CUYAH_009006588	CUYAH_009007893
CUYAH_009005288	CUYAH_009006615	CUYAH_009007924
CUYAH_009005295	CUYAH_009006646	CUYAH_009007954
CUYAH_009005323	CUYAH_009006653	CUYAH_009007982
CUYAH_009005330	CUYAH_009006681	CUYAH_009008014

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_009008041	CUYAH_009009343	CUYAH_009010647
CUYAH_009008070	CUYAH_009009379	CUYAH_009010674
CUYAH_009008098	CUYAH_009009406	CUYAH_009010704
CUYAH_009008128	CUYAH_009009420	CUYAH_009010733
CUYAH_009008135	CUYAH_009009450	CUYAH_009010756
CUYAH_009008162	CUYAH_009009480	CUYAH_009010783
CUYAH_009008170	CUYAH_009009488	CUYAH_009010808
CUYAH_009008178	CUYAH_009009518	CUYAH_009010823
CUYAH_009008205	CUYAH_009009540	CUYAH_009010850
CUYAH_009008231	CUYAH_009009569	CUYAH_009010880
CUYAH_009008261	CUYAH_009009596	CUYAH_009010906
CUYAH_009008286	CUYAH_009009627	CUYAH_009010914
CUYAH_009008294	CUYAH_009009654	CUYAH_009010942
CUYAH_009008321	CUYAH_009009681	CUYAH_009010969
CUYAH_009008350	CUYAH_009009709	CUYAH_009011003
CUYAH_009008388	CUYAH_009009740	CUYAH_009011034
CUYAH_009008419	CUYAH_009009765	CUYAH_009011064
CUYAH_009008450	CUYAH_009009792	CUYAH_009011091
CUYAH_009008474	CUYAH_009009802	CUYAH_009011127
CUYAH_009008504	CUYAH_009009828	CUYAH_009011156
CUYAH_009008532	CUYAH_009009858	CUYAH_009011185
CUYAH_009008560	CUYAH_009009886	CUYAH_009011212
CUYAH_009008585	CUYAH_009009894	CUYAH_009011241
CUYAH_009008592	CUYAH_009009922	CUYAH_009011272
CUYAH_009008622	CUYAH_009009950	CUYAH_009011303
CUYAH_009008650	CUYAH_009009958	CUYAH_009011330
CUYAH_009008678	CUYAH_009009988	CUYAH_009011355
CUYAH_009008704	CUYAH_009010015	CUYAH_009011382
CUYAH_009008735	CUYAH_009010046	CUYAH_009011389
CUYAH_009008762	CUYAH_009010074	CUYAH_009011403
CUYAH_009008792	CUYAH_009010100	CUYAH_009011410
CUYAH_009008819	CUYAH_009010130	CUYAH_009011439
CUYAH_009008877	CUYAH_009010157	CUYAH_009011464
CUYAH_009008906	CUYAH_009010183	CUYAH_009011490
CUYAH_009008936	CUYAH_009010212	CUYAH_009011498
CUYAH_009008962	CUYAH_009010241	CUYAH_009011525
CUYAH_009008988	CUYAH_009010271	CUYAH_009011553
CUYAH_009009015	CUYAH_009010279	CUYAH_009011576
CUYAH_009009026	CUYAH_009010308	CUYAH_009011602
CUYAH_009009055	CUYAH_009010336	CUYAH_009011631
CUYAH_009009082	CUYAH_009010344	CUYAH_009011639
CUYAH_009009109	CUYAH_009010373	CUYAH_009011668
CUYAH_009009138	CUYAH_009010378	CUYAH_009011676
CUYAH_009009153	CUYAH_009010406	CUYAH_009011707
CUYAH_009009184	CUYAH_009010436	CUYAH_009011732
CUYAH_009009209	CUYAH_009010464	CUYAH_009011743
CUYAH_009009238	CUYAH_009010492	CUYAH_009011771
CUYAH_009009263	CUYAH_009010517	CUYAH_009011794
CUYAH_009009270	CUYAH_009010547	CUYAH_009011883
CUYAH_009009299	CUYAH_009010562	CUYAH_009011890
CUYAH_009009307	CUYAH_009010591	CUYAH_009011917
CUYAH_009009335	CUYAH_009010621	CUYAH_009011947

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_009011977	CUYAH_009013463	CUYAH_009014844
CUYAH_009012006	CUYAH_009013493	CUYAH_009014878
CUYAH_009012037	CUYAH_009013524	CUYAH_009014909
CUYAH_009012064	CUYAH_009013552	CUYAH_009014938
CUYAH_009012093	CUYAH_009013581	CUYAH_009014965
CUYAH_009012100	CUYAH_009013588	CUYAH_009014974
CUYAH_009012127	CUYAH_009013616	CUYAH_009015005
CUYAH_009012136	CUYAH_009013644	CUYAH_009015034
CUYAH_009012165	CUYAH_009013676	CUYAH_009015065
CUYAH_009012194	CUYAH_009013706	CUYAH_009015096
CUYAH_009012221	CUYAH_009013734	CUYAH_009015127
CUYAH_009012251	CUYAH_009013759	CUYAH_009015155
CUYAH_009012258	CUYAH_009013790	CUYAH_009015163
CUYAH_009012286	CUYAH_009013826	CUYAH_009015198
CUYAH_009012316	CUYAH_009013857	CUYAH_009015228
CUYAH_009012346	CUYAH_009013884	CUYAH_009015256
CUYAH_009012406	CUYAH_009013909	CUYAH_009015265
CUYAH_009012433	CUYAH_009013924	CUYAH_009015297
CUYAH_009012447	CUYAH_009013948	CUYAH_009015324
CUYAH_009012477	CUYAH_009013957	CUYAH_009015350
CUYAH_009012513	CUYAH_009013986	CUYAH_009015358
CUYAH_009012536	CUYAH_009014007	CUYAH_009015393
CUYAH_009012563	CUYAH_009014036	CUYAH_009015422
CUYAH_009012601	CUYAH_009014065	CUYAH_009015447
CUYAH_009012608	CUYAH_009014091	CUYAH_009015475
CUYAH_009012642	CUYAH_009014122	CUYAH_009015504
CUYAH_009012672	CUYAH_009014170	CUYAH_009015533
CUYAH_009012697	CUYAH_009014221	CUYAH_009015560
CUYAH_009012730	CUYAH_009014268	CUYAH_009015591
CUYAH_009012759	CUYAH_009014297	CUYAH_009015622
CUYAH_009012780	CUYAH_009014324	CUYAH_009015652
CUYAH_009012806	CUYAH_009014356	CUYAH_009015684
CUYAH_009012837	CUYAH_009014382	CUYAH_009015711
CUYAH_009012866	CUYAH_009014411	CUYAH_009015737
CUYAH_009012889	CUYAH_009014418	CUYAH_009015766
CUYAH_009012919	CUYAH_009014425	CUYAH_009015794
CUYAH_009012946	CUYAH_009014454	CUYAH_009015824
CUYAH_009012972	CUYAH_009014480	CUYAH_009015854
CUYAH_009012981	CUYAH_009014507	CUYAH_009015881
CUYAH_009013011	CUYAH_009014533	CUYAH_009015906
CUYAH_009013032	CUYAH_009014560	CUYAH_009015933
CUYAH_009013058	CUYAH_009014574	CUYAH_009015961
CUYAH_009013071	CUYAH_009014603	CUYAH_009015991
CUYAH_009013101	CUYAH_009014629	CUYAH_009016015
CUYAH_009013129	CUYAH_009014659	CUYAH_009016049
CUYAH_009013136	CUYAH_009014685	CUYAH_009016081
CUYAH_009013168	CUYAH_009014699	CUYAH_009016110
CUYAH_009013356	CUYAH_009014724	CUYAH_009016139
CUYAH_009013386	CUYAH_009014753	CUYAH_009016169
CUYAH_009013400	CUYAH_009014784	CUYAH_009016198
CUYAH_009013428	CUYAH_009014813	CUYAH_009016226
CUYAH_009013455	CUYAH_009014836	CUYAH_009016233

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_009016258	CUYAH_009017614	CUYAH_009018984
CUYAH_009016289	CUYAH_009017639	CUYAH_009019006
CUYAH_009016318	CUYAH_009017669	CUYAH_009019026
CUYAH_009016342	CUYAH_009017684	CUYAH_009019065
CUYAH_009016371	CUYAH_009017713	CUYAH_009019089
CUYAH_009016400	CUYAH_009017742	CUYAH_009019128
CUYAH_009016424	CUYAH_009017771	CUYAH_009019166
CUYAH_009016450	CUYAH_009017801	CUYAH_009019196
CUYAH_009016480	CUYAH_009017835	CUYAH_009019232
CUYAH_009016508	CUYAH_009017863	CUYAH_009019260
CUYAH_009016537	CUYAH_009017893	CUYAH_009019292
CUYAH_009016543	CUYAH_009017917	CUYAH_009019464
CUYAH_009016558	CUYAH_009017947	CUYAH_009019489
CUYAH_009016585	CUYAH_009017956	CUYAH_009019515
CUYAH_009016614	CUYAH_009017986	CUYAH_009019541
CUYAH_009016644	CUYAH_009018015	CUYAH_009019571
CUYAH_009016652	CUYAH_009018022	CUYAH_009019579
CUYAH_009016681	CUYAH_009018047	CUYAH_009019593
CUYAH_009016709	CUYAH_009018077	CUYAH_009019616
CUYAH_009016739	CUYAH_009018084	CUYAH_009019647
CUYAH_009016770	CUYAH_009018114	CUYAH_009019664
CUYAH_009016797	CUYAH_009018123	CUYAH_009019693
CUYAH_009016823	CUYAH_009018151	CUYAH_009019706
CUYAH_009016830	CUYAH_009018159	CUYAH_009019736
CUYAH_009016856	CUYAH_009018187	CUYAH_009019764
CUYAH_009016882	CUYAH_009018212	CUYAH_009019792
CUYAH_009016908	CUYAH_009018240	CUYAH_009019818
CUYAH_009016922	CUYAH_009018269	CUYAH_009019840
CUYAH_009016951	CUYAH_009018278	CUYAH_009019882
CUYAH_009016981	CUYAH_009018304	CUYAH_009019910
CUYAH_009017009	CUYAH_009018329	CUYAH_009019939
CUYAH_009017039	CUYAH_009018359	CUYAH_009019964
CUYAH_009017052	CUYAH_009018374	CUYAH_009019990
CUYAH_009017075	CUYAH_009018398	CUYAH_009020020
CUYAH_009017102	CUYAH_009018412	CUYAH_009020050
CUYAH_009017133	CUYAH_009018421	CUYAH_009020080
CUYAH_009017163	CUYAH_009018452	CUYAH_009020109
CUYAH_009017200	CUYAH_009018480	CUYAH_009020139
CUYAH_009017223	CUYAH_009018506	CUYAH_009020171
CUYAH_009017250	CUYAH_009018534	CUYAH_009020186
CUYAH_009017280	CUYAH_009018562	CUYAH_009020215
CUYAH_009017308	CUYAH_009018590	CUYAH_009020242
CUYAH_009017337	CUYAH_009018620	CUYAH_009020271
CUYAH_009017365	CUYAH_009018647	CUYAH_009020301
CUYAH_009017391	CUYAH_009018673	CUYAH_009020331
CUYAH_009017416	CUYAH_009018706	CUYAH_009020339
CUYAH_009017443	CUYAH_009018736	CUYAH_009020372
CUYAH_009017472	CUYAH_009018764	CUYAH_009020395
CUYAH_009017501	CUYAH_009018792	CUYAH_009020425
CUYAH_009017530	CUYAH_009018828	CUYAH_009020451
CUYAH_009017560	CUYAH_009018855	CUYAH_009020460
CUYAH_009017586	CUYAH_009018938	CUYAH_009020488

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_009020516	CUYAH_009021746	CUYAH_009022906
CUYAH_009020524	CUYAH_009021774	CUYAH_009022932
CUYAH_009020553	CUYAH_009021782	CUYAH_009022948
CUYAH_009020585	CUYAH_009021812	CUYAH_009023027
CUYAH_009020593	CUYAH_009021841	CUYAH_009023057
CUYAH_009020600	CUYAH_009021872	CUYAH_009023084
CUYAH_009020629	CUYAH_009021898	CUYAH_009023109
CUYAH_009020644	CUYAH_009021927	CUYAH_009023140
CUYAH_009020658	CUYAH_009021952	CUYAH_009023168
CUYAH_009020687	CUYAH_009021981	CUYAH_009023176
CUYAH_009020710	CUYAH_009022036	CUYAH_009023204
CUYAH_009020739	CUYAH_009022064	CUYAH_009023232
CUYAH_009020764	CUYAH_009022073	CUYAH_009023260
CUYAH_009020793	CUYAH_009022104	CUYAH_009023290
CUYAH_009020800	CUYAH_009022132	CUYAH_009023316
CUYAH_009020827	CUYAH_009022162	CUYAH_009023346
CUYAH_009020858	CUYAH_009022170	CUYAH_009023376
CUYAH_009020884	CUYAH_009022197	CUYAH_009023404
CUYAH_009020890	CUYAH_009022226	CUYAH_009023495
CUYAH_009020915	CUYAH_009022254	CUYAH_009023521
CUYAH_009020938	CUYAH_009022281	CUYAH_009023528
CUYAH_009020963	CUYAH_009022306	CUYAH_009023553
CUYAH_009020990	CUYAH_009022334	CUYAH_009023584
CUYAH_009021019	CUYAH_009022341	CUYAH_009023629
CUYAH_009021047	CUYAH_009022366	CUYAH_009023660
CUYAH_009021075	CUYAH_009022396	CUYAH_009023685
CUYAH_009021104	CUYAH_009022403	CUYAH_009023709
CUYAH_009021133	CUYAH_009022433	CUYAH_009023735
CUYAH_009021141	CUYAH_009022447	CUYAH_009023759
CUYAH_009021177	CUYAH_009022473	CUYAH_009023784
CUYAH_009021203	CUYAH_009022501	CUYAH_009023810
CUYAH_009021232	CUYAH_009022530	CUYAH_009023838
CUYAH_009021262	CUYAH_009022561	CUYAH_009023864
CUYAH_009021289	CUYAH_009022570	CUYAH_009023891
CUYAH_009021316	CUYAH_009022577	CUYAH_009023917
CUYAH_009021347	CUYAH_009022606	CUYAH_009023926
CUYAH_009021376	CUYAH_009022634	CUYAH_009023949
CUYAH_009021400	CUYAH_009022660	CUYAH_009023978
CUYAH_009021429	CUYAH_009022686	CUYAH_009024006
CUYAH_009021457	CUYAH_009022711	CUYAH_009024033
CUYAH_009021485	CUYAH_009022718	CUYAH_009024062
CUYAH_009021520	CUYAH_009022746	CUYAH_009024090
CUYAH_009021545	CUYAH_009022753	CUYAH_009024116
CUYAH_009021552	CUYAH_009022760	CUYAH_009024129
CUYAH_009021581	CUYAH_009022769	CUYAH_009024157
CUYAH_009021607	CUYAH_009022776	CUYAH_009024183
CUYAH_009021636	CUYAH_009022802	CUYAH_009024191
CUYAH_009021666	CUYAH_009022808	CUYAH_009024222
CUYAH_009021694	CUYAH_009022834	CUYAH_009024253
CUYAH_009021702	CUYAH_009022861	CUYAH_009024279
CUYAH_009021731	CUYAH_009022869	CUYAH_009024303
CUYAH_009021739	CUYAH_009022898	CUYAH_009024327

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_009024354	CUYAH_009025749	CUYAH_009027145
CUYAH_009024383	CUYAH_009025763	CUYAH_009027170
CUYAH_009024409	CUYAH_009025793	CUYAH_009027199
CUYAH_009024439	CUYAH_009025820	CUYAH_009027206
CUYAH_009024468	CUYAH_009025849	CUYAH_009027213
CUYAH_009024496	CUYAH_009025875	CUYAH_009027244
CUYAH_009024522	CUYAH_009025890	CUYAH_009027274
CUYAH_009024546	CUYAH_009025899	CUYAH_009027303
CUYAH_009024554	CUYAH_009025930	CUYAH_009027328
CUYAH_009024569	CUYAH_009025937	CUYAH_009027354
CUYAH_009024583	CUYAH_009025962	CUYAH_009027385
CUYAH_009024611	CUYAH_009025987	CUYAH_009027392
CUYAH_009024638	CUYAH_009026015	CUYAH_009027422
CUYAH_009024647	CUYAH_009026022	CUYAH_009027458
CUYAH_009024661	CUYAH_009026049	CUYAH_009027485
CUYAH_009024692	CUYAH_009026073	CUYAH_009027516
CUYAH_009024719	CUYAH_009026107	CUYAH_009027546
CUYAH_009024744	CUYAH_009026140	CUYAH_009027571
CUYAH_009024775	CUYAH_009026167	CUYAH_009027597
CUYAH_009024800	CUYAH_009026195	CUYAH_009027625
CUYAH_009024827	CUYAH_009026224	CUYAH_009027632
CUYAH_009024855	CUYAH_009026250	CUYAH_009027642
CUYAH_009024880	CUYAH_009026274	CUYAH_009027649
CUYAH_009024905	CUYAH_009026304	CUYAH_009027678
CUYAH_009024936	CUYAH_009026334	CUYAH_009027705
CUYAH_009024961	CUYAH_009026359	CUYAH_009027733
CUYAH_009024991	CUYAH_009026389	CUYAH_009027760
CUYAH_009025025	CUYAH_009026417	CUYAH_009027768
CUYAH_009025050	CUYAH_009026443	CUYAH_009027798
CUYAH_009025076	CUYAH_009026469	CUYAH_009027826
CUYAH_009025105	CUYAH_009026493	CUYAH_009027854
CUYAH_009025133	CUYAH_009026521	CUYAH_009027862
CUYAH_009025159	CUYAH_009026549	CUYAH_009027888
CUYAH_009025189	CUYAH_009026610	CUYAH_009027916
CUYAH_009025198	CUYAH_009026639	CUYAH_009027943
CUYAH_009025225	CUYAH_009026666	CUYAH_009027973
CUYAH_009025230	CUYAH_009026698	CUYAH_009028000
CUYAH_009025237	CUYAH_009026724	CUYAH_009028031
CUYAH_009025265	CUYAH_009026751	CUYAH_009028038
CUYAH_009025293	CUYAH_009026775	CUYAH_009028063
CUYAH_009025409	CUYAH_009026803	CUYAH_009028088
CUYAH_009025434	CUYAH_009026837	CUYAH_009028095
CUYAH_009025463	CUYAH_009026862	CUYAH_009028120
CUYAH_009025488	CUYAH_009026890	CUYAH_009028151
CUYAH_009025514	CUYAH_009026919	CUYAH_009028176
CUYAH_009025542	CUYAH_009026945	CUYAH_009028207
CUYAH_009025571	CUYAH_009026973	CUYAH_009028235
CUYAH_009025601	CUYAH_009027001	CUYAH_009028273
CUYAH_009025630	CUYAH_009027031	CUYAH_009028306
CUYAH_009025638	CUYAH_009027060	CUYAH_009028331
CUYAH_009025700	CUYAH_009027088	CUYAH_009028358
CUYAH_009025734	CUYAH_009027118	CUYAH_009028388

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_009028402	CUYAH_009029702	CUYAH_009030981
CUYAH_009028431	CUYAH_009029727	CUYAH_009031007
CUYAH_009028458	CUYAH_009029755	CUYAH_009031033
CUYAH_009028485	CUYAH_009029785	CUYAH_009031059
CUYAH_009028512	CUYAH_009029810	CUYAH_009031086
CUYAH_009028538	CUYAH_009029836	CUYAH_009031112
CUYAH_009028566	CUYAH_009029863	CUYAH_009031140
CUYAH_009028592	CUYAH_009029886	CUYAH_009031166
CUYAH_009028623	CUYAH_009029914	CUYAH_009031171
CUYAH_009028653	CUYAH_009029941	CUYAH_009031198
CUYAH_009028682	CUYAH_009029947	CUYAH_009031222
CUYAH_009028706	CUYAH_009029976	CUYAH_009031253
CUYAH_009028734	CUYAH_009029999	CUYAH_009031278
CUYAH_009028763	CUYAH_009030028	CUYAH_009031284
CUYAH_009028790	CUYAH_009030034	CUYAH_009031311
CUYAH_009028816	CUYAH_009030061	CUYAH_009031319
CUYAH_009028822	CUYAH_009030068	CUYAH_009031327
CUYAH_009028848	CUYAH_009030094	CUYAH_009031355
CUYAH_009028878	CUYAH_009030143	CUYAH_009031361
CUYAH_009028902	CUYAH_009030171	CUYAH_009031390
CUYAH_009028909	CUYAH_009030198	CUYAH_009031418
CUYAH_009028935	CUYAH_009030224	CUYAH_009031445
CUYAH_009028963	CUYAH_009030249	CUYAH_009031471
CUYAH_009028992	CUYAH_009030279	CUYAH_009031495
CUYAH_009029019	CUYAH_009030304	CUYAH_009031523
CUYAH_009029027	CUYAH_009030328	CUYAH_009031550
CUYAH_009029034	CUYAH_009030355	CUYAH_009031578
CUYAH_009029066	CUYAH_009030382	CUYAH_009031604
CUYAH_009029073	CUYAH_009030409	CUYAH_009031628
CUYAH_009029106	CUYAH_009030415	CUYAH_009031653
CUYAH_009029133	CUYAH_009030442	CUYAH_009031683
CUYAH_009029162	CUYAH_009030467	CUYAH_009031709
CUYAH_009029177	CUYAH_009030491	CUYAH_009031740
CUYAH_009029205	CUYAH_009030522	CUYAH_009031768
CUYAH_009029233	CUYAH_009030546	CUYAH_009031793
CUYAH_009029247	CUYAH_009030574	CUYAH_009031799
CUYAH_009029271	CUYAH_009030599	CUYAH_009031823
CUYAH_009029301	CUYAH_009030627	CUYAH_009031874
CUYAH_009029332	CUYAH_009030653	CUYAH_009031901
CUYAH_009029360	CUYAH_009030686	CUYAH_009031927
CUYAH_009029390	CUYAH_009030700	CUYAH_009031959
CUYAH_009029417	CUYAH_009030727	CUYAH_009031988
CUYAH_009029443	CUYAH_009030751	CUYAH_009032017
CUYAH_009029467	CUYAH_009030779	CUYAH_009032043
CUYAH_009029474	CUYAH_009030803	CUYAH_009032069
CUYAH_009029505	CUYAH_009030831	CUYAH_009032094
CUYAH_009029533	CUYAH_009030864	CUYAH_009032109
CUYAH_009029563	CUYAH_009030890	CUYAH_009032141
CUYAH_009029590	CUYAH_009030904	CUYAH_009032169
CUYAH_009029625	CUYAH_009030911	CUYAH_009032177
CUYAH_009029647	CUYAH_009030938	CUYAH_009032201
CUYAH_009029672	CUYAH_009030952	CUYAH_009032226

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_009032252	CUYAH_009033575	CUYAH_009034752
CUYAH_009032277	CUYAH_009033582	CUYAH_009034778
CUYAH_009032305	CUYAH_009033596	CUYAH_009034804
CUYAH_009032336	CUYAH_009033626	CUYAH_009034831
CUYAH_009032361	CUYAH_009033654	CUYAH_009034861
CUYAH_009032388	CUYAH_009033682	CUYAH_009034867
CUYAH_009032416	CUYAH_009033707	CUYAH_009034898
CUYAH_009032446	CUYAH_009033708	CUYAH_009034923
CUYAH_009032477	CUYAH_009033733	CUYAH_009034946
CUYAH_009032485	CUYAH_009033760	CUYAH_009034976
CUYAH_009032510	CUYAH_009033785	CUYAH_009034983
CUYAH_009032536	CUYAH_009033810	CUYAH_009035009
CUYAH_009032562	CUYAH_009033839	CUYAH_009035016
CUYAH_009032575	CUYAH_009033865	CUYAH_009035045
CUYAH_009032601	CUYAH_009033895	CUYAH_009035052
CUYAH_009032626	CUYAH_009033923	CUYAH_009035079
CUYAH_009032651	CUYAH_009033949	CUYAH_009035104
CUYAH_009032675	CUYAH_009033988	CUYAH_009035110
CUYAH_009032709	CUYAH_009033995	CUYAH_009035138
CUYAH_009032735	CUYAH_009034027	CUYAH_009035144
CUYAH_009032759	CUYAH_009034053	CUYAH_009035170
CUYAH_009032783	CUYAH_009034084	CUYAH_009035195
CUYAH_009032790	CUYAH_009034109	CUYAH_009035220
CUYAH_009032816	CUYAH_009034118	CUYAH_009035248
CUYAH_009032845	CUYAH_009034145	CUYAH_009035255
CUYAH_009032871	CUYAH_009034174	CUYAH_009035286
CUYAH_009032876	CUYAH_009034183	CUYAH_009035312
CUYAH_009032907	CUYAH_009034209	CUYAH_009035339
CUYAH_009032935	CUYAH_009034235	CUYAH_009035346
CUYAH_009032960	CUYAH_009034261	CUYAH_009035372
CUYAH_009032988	CUYAH_009034268	CUYAH_009035400
CUYAH_009033013	CUYAH_009034293	CUYAH_009035406
CUYAH_009033037	CUYAH_009034324	CUYAH_009035415
CUYAH_009033064	CUYAH_009034351	CUYAH_009035444
CUYAH_009033088	CUYAH_009034378	CUYAH_009035470
CUYAH_009033113	CUYAH_009034392	CUYAH_009035498
CUYAH_009033139	CUYAH_009034420	CUYAH_009035522
CUYAH_009033166	CUYAH_009034434	CUYAH_009035548
CUYAH_009033192	CUYAH_009034458	CUYAH_009035572
CUYAH_009033224	CUYAH_009034483	CUYAH_009035599
CUYAH_009033251	CUYAH_009034510	CUYAH_009035624
CUYAH_009033283	CUYAH_009034537	CUYAH_009035650
CUYAH_009033311	CUYAH_009034565	CUYAH_009035676
CUYAH_009033337	CUYAH_009034589	CUYAH_009035704
CUYAH_009033363	CUYAH_009034595	CUYAH_009035718
CUYAH_009033389	CUYAH_009034624	CUYAH_009035743
CUYAH_009033413	CUYAH_009034653	CUYAH_009035770
CUYAH_009033442	CUYAH_009034675	CUYAH_009035778
CUYAH_009033467	CUYAH_009034683	CUYAH_009035807
CUYAH_009033491	CUYAH_009034712	CUYAH_009035834
CUYAH_009033516	CUYAH_009034721	CUYAH_009035859
CUYAH_009033544	CUYAH_009034728	CUYAH_009035885

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_009035913	CUYAH_009037246	CUYAH_009038631
CUYAH_009035940	CUYAH_009037272	CUYAH_009038641
CUYAH_009035966	CUYAH_009037296	CUYAH_009038656
CUYAH_009035992	CUYAH_009037324	CUYAH_009038679
CUYAH_009036020	CUYAH_009037347	CUYAH_009038686
CUYAH_009036047	CUYAH_009037413	CUYAH_009038701
CUYAH_009036072	CUYAH_009037439	CUYAH_009038728
CUYAH_009036098	CUYAH_009037452	CUYAH_009038751
CUYAH_009036123	CUYAH_009037478	CUYAH_009038765
CUYAH_009036130	CUYAH_009037505	CUYAH_009038791
CUYAH_009036156	CUYAH_009037531	CUYAH_009038814
CUYAH_009036180	CUYAH_009037539	CUYAH_009038839
CUYAH_009036209	CUYAH_009037564	CUYAH_009038865
CUYAH_009036241	CUYAH_009037590	CUYAH_009038879
CUYAH_009036267	CUYAH_009037615	CUYAH_009038893
CUYAH_009036293	CUYAH_009037644	CUYAH_009038907
CUYAH_009036318	CUYAH_009037670	CUYAH_009038914
CUYAH_009036325	CUYAH_009037696	CUYAH_009038941
CUYAH_009036339	CUYAH_009037720	CUYAH_009038967
CUYAH_009036364	CUYAH_009037744	CUYAH_009038994
CUYAH_009036391	CUYAH_009037772	CUYAH_009039022
CUYAH_009036420	CUYAH_009037797	CUYAH_009039048
CUYAH_009036448	CUYAH_009037823	CUYAH_009039076
CUYAH_009036461	CUYAH_009037853	CUYAH_009039102
CUYAH_009036468	CUYAH_009037878	CUYAH_009039128
CUYAH_009036495	CUYAH_009037903	CUYAH_009039153
CUYAH_009036521	CUYAH_009037930	CUYAH_009039168
CUYAH_009036547	CUYAH_009037954	CUYAH_009039195
CUYAH_009036575	CUYAH_009037992	CUYAH_009039218
CUYAH_009036602	CUYAH_009038020	CUYAH_009039246
CUYAH_009036629	CUYAH_009038048	CUYAH_009039273
CUYAH_009036659	CUYAH_009038073	CUYAH_009039297
CUYAH_009036687	CUYAH_009038101	CUYAH_009039324
CUYAH_009036702	CUYAH_009038126	CUYAH_009039352
CUYAH_009036730	CUYAH_009038153	CUYAH_009039381
CUYAH_009036758	CUYAH_009038178	CUYAH_009039411
CUYAH_009036782	CUYAH_009038212	CUYAH_009039426
CUYAH_009036807	CUYAH_009038237	CUYAH_009039440
CUYAH_009036822	CUYAH_009038263	CUYAH_009039466
CUYAH_009036846	CUYAH_009038290	CUYAH_009039491
CUYAH_009036873	CUYAH_009038317	CUYAH_009039496
CUYAH_009036894	CUYAH_009038324	CUYAH_009039511
CUYAH_009037025	CUYAH_009038355	CUYAH_009039539
CUYAH_009037049	CUYAH_009038383	CUYAH_009039560
CUYAH_009037077	CUYAH_009038410	CUYAH_009039574
CUYAH_009037084	CUYAH_009038435	CUYAH_009039587
CUYAH_009037107	CUYAH_009038468	CUYAH_009039613
CUYAH_009037113	CUYAH_009038495	CUYAH_009039638
CUYAH_009037136	CUYAH_009038502	CUYAH_009039644
CUYAH_009037162	CUYAH_009038575	CUYAH_009039669
CUYAH_009037188	CUYAH_009038590	CUYAH_009039695
CUYAH_009037218	CUYAH_009038598	CUYAH_009039723

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_009039749	CUYAH_009041406	CUYAH_009042678
CUYAH_009039775	CUYAH_009041431	CUYAH_009042701
CUYAH_009039801	CUYAH_009041457	CUYAH_009042727
CUYAH_009039829	CUYAH_009041484	CUYAH_009042734
CUYAH_009039857	CUYAH_009041491	CUYAH_009042762
CUYAH_009039863	CUYAH_009041519	CUYAH_009042788
CUYAH_009039890	CUYAH_009041548	CUYAH_009042813
CUYAH_009039914	CUYAH_009041575	CUYAH_009042843
CUYAH_009039920	CUYAH_009041609	CUYAH_009042870
CUYAH_009039945	CUYAH_009041639	CUYAH_009042896
CUYAH_009039972	CUYAH_009041671	CUYAH_009042922
CUYAH_009039998	CUYAH_009041685	CUYAH_009042929
CUYAH_009040025	CUYAH_009041710	CUYAH_009042953
CUYAH_009040052	CUYAH_009041717	CUYAH_009042979
CUYAH_009040060	CUYAH_009041743	CUYAH_009043005
CUYAH_009040088	CUYAH_009041769	CUYAH_009043031
CUYAH_009040120	CUYAH_009041795	CUYAH_009043039
CUYAH_009040170	CUYAH_009041821	CUYAH_009043068
CUYAH_009040249	CUYAH_009041849	CUYAH_009043094
CUYAH_009040378	CUYAH_009041874	CUYAH_009043126
CUYAH_009040396	CUYAH_009041902	CUYAH_009043151
CUYAH_009040433	CUYAH_009041928	CUYAH_009043178
CUYAH_009040472	CUYAH_009041954	CUYAH_009043193
CUYAH_009040521	CUYAH_009041980	CUYAH_009043216
CUYAH_009040583	CUYAH_009042005	CUYAH_009043237
CUYAH_009040663	CUYAH_009042033	CUYAH_009043262
CUYAH_009040700	CUYAH_009042059	CUYAH_009043289
CUYAH_009040719	CUYAH_009042085	CUYAH_009043317
CUYAH_009040744	CUYAH_009042091	CUYAH_009043342
CUYAH_009040773	CUYAH_009042117	CUYAH_009043371
CUYAH_009040812	CUYAH_009042142	CUYAH_009043385
CUYAH_009040863	CUYAH_009042167	CUYAH_009043392
CUYAH_009040894	CUYAH_009042191	CUYAH_009043418
CUYAH_009040940	CUYAH_009042217	CUYAH_009043445
CUYAH_009040971	CUYAH_009042241	CUYAH_009043474
CUYAH_009040998	CUYAH_009042248	CUYAH_009043501
CUYAH_009041034	CUYAH_009042274	CUYAH_009043529
CUYAH_009041073	CUYAH_009042300	CUYAH_009043556
CUYAH_009041096	CUYAH_009042327	CUYAH_009043583
CUYAH_009041120	CUYAH_009042357	CUYAH_009043621
CUYAH_009041144	CUYAH_009042383	CUYAH_009043657
CUYAH_009041168	CUYAH_009042408	CUYAH_009043674
CUYAH_009041192	CUYAH_009042431	CUYAH_009043728
CUYAH_009041216	CUYAH_009042445	CUYAH_009043764
CUYAH_009041222	CUYAH_009042471	CUYAH_009043791
CUYAH_009041228	CUYAH_009042498	CUYAH_009043835
CUYAH_009041254	CUYAH_009042523	CUYAH_009043908
CUYAH_009041279	CUYAH_009042547	CUYAH_009043945
CUYAH_009041302	CUYAH_009042572	CUYAH_009044002
CUYAH_009041328	CUYAH_009042599	CUYAH_009044036
CUYAH_009041354	CUYAH_009042625	CUYAH_009044081
CUYAH_009041381	CUYAH_009042652	CUYAH_009044109

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_009044134	CUYAH_009045420	CUYAH_009046635
CUYAH_009044161	CUYAH_009045446	CUYAH_009046665
CUYAH_009044187	CUYAH_009045471	CUYAH_009046689
CUYAH_009044211	CUYAH_009045499	CUYAH_009046718
CUYAH_009044237	CUYAH_009045525	CUYAH_009046750
CUYAH_009044263	CUYAH_009045529	CUYAH_009046776
CUYAH_009044291	CUYAH_009045537	CUYAH_009046783
CUYAH_009044318	CUYAH_009045563	CUYAH_009046808
CUYAH_009044346	CUYAH_009045592	CUYAH_009046834
CUYAH_009044373	CUYAH_009045599	CUYAH_009046840
CUYAH_009044398	CUYAH_009045604	CUYAH_009046868
CUYAH_009044424	CUYAH_009045610	CUYAH_009046894
CUYAH_009044451	CUYAH_009045634	CUYAH_009046921
CUYAH_009044458	CUYAH_009045640	CUYAH_009046948
CUYAH_009044485	CUYAH_009045666	CUYAH_009046973
CUYAH_009044514	CUYAH_009045673	CUYAH_009046999
CUYAH_009044539	CUYAH_009045700	CUYAH_009047024
CUYAH_009044565	CUYAH_009045730	CUYAH_009047036
CUYAH_009044591	CUYAH_009045758	CUYAH_009047043
CUYAH_009044617	CUYAH_009045783	CUYAH_009047070
CUYAH_009044645	CUYAH_009045811	CUYAH_009047076
CUYAH_009044652	CUYAH_009045837	CUYAH_009047109
CUYAH_009044678	CUYAH_009045851	CUYAH_009047133
CUYAH_009044705	CUYAH_009045859	CUYAH_009047158
CUYAH_009044731	CUYAH_009045884	CUYAH_009047181
CUYAH_009044759	CUYAH_009045909	CUYAH_009047207
CUYAH_009044788	CUYAH_009045935	CUYAH_009047213
CUYAH_009044814	CUYAH_009045941	CUYAH_009047241
CUYAH_009044839	CUYAH_009045947	CUYAH_009047266
CUYAH_009044859	CUYAH_009045974	CUYAH_009047293
CUYAH_009044884	CUYAH_009045999	CUYAH_009047319
CUYAH_009044913	CUYAH_009046025	CUYAH_009047346
CUYAH_009044939	CUYAH_009046053	CUYAH_009047373
CUYAH_009044972	CUYAH_009046080	CUYAH_009047400
CUYAH_009044997	CUYAH_009046105	CUYAH_009047426
CUYAH_009045024	CUYAH_009046132	CUYAH_009047452
CUYAH_009045049	CUYAH_009046157	CUYAH_009047472
CUYAH_009045056	CUYAH_009046183	CUYAH_009047503
CUYAH_009045088	CUYAH_009046208	CUYAH_009047531
CUYAH_009045114	CUYAH_009046235	CUYAH_009047557
CUYAH_009045120	CUYAH_009046262	CUYAH_009047583
CUYAH_009045146	CUYAH_009046292	CUYAH_009047591
CUYAH_009045170	CUYAH_009046317	CUYAH_009047598
CUYAH_009045194	CUYAH_009046343	CUYAH_009047624
CUYAH_009045204	CUYAH_009046351	CUYAH_009047652
CUYAH_009045232	CUYAH_009046377	CUYAH_009047678
CUYAH_009045258	CUYAH_009046402	CUYAH_009047704
CUYAH_009045290	CUYAH_009046429	CUYAH_009047710
CUYAH_009045317	CUYAH_009046454	CUYAH_009047736
CUYAH_009045341	CUYAH_009046537	CUYAH_009047742
CUYAH_009045368	CUYAH_009046600	CUYAH_009047767
CUYAH_009045392	CUYAH_009046606	CUYAH_009047775

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_009047801	CUYAH_009049018	CUYAH_009050229
CUYAH_009047826	CUYAH_009049045	CUYAH_009050256
CUYAH_009047852	CUYAH_009049073	CUYAH_009050283
CUYAH_009047878	CUYAH_009049098	CUYAH_009050290
CUYAH_009047908	CUYAH_009049124	CUYAH_009050316
CUYAH_009047936	CUYAH_009049148	CUYAH_009050342
CUYAH_009047961	CUYAH_009049176	CUYAH_009050370
CUYAH_009047987	CUYAH_009049202	CUYAH_009050396
CUYAH_009048013	CUYAH_009049227	CUYAH_009050424
CUYAH_009048040	CUYAH_009049233	CUYAH_009050449
CUYAH_009048067	CUYAH_009049239	CUYAH_009050476
CUYAH_009048074	CUYAH_009049269	CUYAH_009050501
CUYAH_009048102	CUYAH_009049276	CUYAH_009050529
CUYAH_009048131	CUYAH_009049284	CUYAH_009050555
CUYAH_009048156	CUYAH_009049311	CUYAH_009050581
CUYAH_009048179	CUYAH_009049338	CUYAH_009050608
CUYAH_009048204	CUYAH_009049368	CUYAH_009050632
CUYAH_009048229	CUYAH_009049393	CUYAH_009050646
CUYAH_009048255	CUYAH_009049422	CUYAH_009050675
CUYAH_009048261	CUYAH_009049447	CUYAH_009050701
CUYAH_009048267	CUYAH_009049473	CUYAH_009050729
CUYAH_009048293	CUYAH_009049500	CUYAH_009050735
CUYAH_009048318	CUYAH_009049507	CUYAH_009050827
CUYAH_009048344	CUYAH_009049533	CUYAH_009050853
CUYAH_009048371	CUYAH_009049559	CUYAH_009050878
CUYAH_009048400	CUYAH_009049566	CUYAH_009050885
CUYAH_009048407	CUYAH_009049592	CUYAH_009050911
CUYAH_009048413	CUYAH_009049599	CUYAH_009050917
CUYAH_009048440	CUYAH_009049626	CUYAH_009050943
CUYAH_009048465	CUYAH_009049652	CUYAH_009050949
CUYAH_009048490	CUYAH_009049677	CUYAH_009050975
CUYAH_009048518	CUYAH_009049703	CUYAH_009051003
CUYAH_009048548	CUYAH_009049729	CUYAH_009051031
CUYAH_009048575	CUYAH_009049754	CUYAH_009051060
CUYAH_009048582	CUYAH_009049779	CUYAH_009051084
CUYAH_009048588	CUYAH_009049808	CUYAH_009051110
CUYAH_009048614	CUYAH_009049834	CUYAH_009051141
CUYAH_009048644	CUYAH_009049864	CUYAH_009051169
CUYAH_009048650	CUYAH_009049892	CUYAH_009051175
CUYAH_009048675	CUYAH_009049918	CUYAH_009051201
CUYAH_009048704	CUYAH_009049943	CUYAH_009051207
CUYAH_009048732	CUYAH_009049972	CUYAH_009051213
CUYAH_009048761	CUYAH_009049997	CUYAH_009051239
CUYAH_009048787	CUYAH_009050023	CUYAH_009051266
CUYAH_009048816	CUYAH_009050048	CUYAH_009051290
CUYAH_009048842	CUYAH_009050073	CUYAH_009051316
CUYAH_009048870	CUYAH_009050088	CUYAH_009051342
CUYAH_009048896	CUYAH_009050112	CUYAH_009051368
CUYAH_009048922	CUYAH_009050139	CUYAH_009051394
CUYAH_009048948	CUYAH_009050166	CUYAH_009051420
CUYAH_009048956	CUYAH_009050196	CUYAH_009051429
CUYAH_009048983	CUYAH_009050223	CUYAH_009051455

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_009051461	CUYAH_009052603	CUYAH_009054040
CUYAH_009051486	CUYAH_009052628	CUYAH_009054067
CUYAH_009051513	CUYAH_009052654	CUYAH_009054095
CUYAH_009051544	CUYAH_009052680	CUYAH_009054121
CUYAH_009051569	CUYAH_009052708	CUYAH_009054148
CUYAH_009051593	CUYAH_009052732	CUYAH_009054174
CUYAH_009051600	CUYAH_009052758	CUYAH_009054200
CUYAH_009051626	CUYAH_009052785	CUYAH_009054214
CUYAH_009051653	CUYAH_009052809	CUYAH_009054240
CUYAH_009051677	CUYAH_009052835	CUYAH_009054265
CUYAH_009051686	CUYAH_009052870	CUYAH_009054292
CUYAH_009051710	CUYAH_009052897	CUYAH_009054319
CUYAH_009051735	CUYAH_009052922	CUYAH_009054342
CUYAH_009051762	CUYAH_009052950	CUYAH_009054369
CUYAH_009051768	CUYAH_009052976	CUYAH_009054398
CUYAH_009051794	CUYAH_009053002	CUYAH_009054427
CUYAH_009051820	CUYAH_009053028	CUYAH_009054451
CUYAH_009051848	CUYAH_009053050	CUYAH_009054475
CUYAH_009051873	CUYAH_009053075	CUYAH_009054501
CUYAH_009051899	CUYAH_009053081	CUYAH_009054527
CUYAH_009051925	CUYAH_009053108	CUYAH_009054556
CUYAH_009051951	CUYAH_009053115	CUYAH_009054565
CUYAH_009051979	CUYAH_009053144	CUYAH_009054590
CUYAH_009052005	CUYAH_009053171	CUYAH_009054615
CUYAH_009052032	CUYAH_009053195	CUYAH_009054641
CUYAH_009052060	CUYAH_009053219	CUYAH_009054666
CUYAH_009052085	CUYAH_009053244	CUYAH_009054680
CUYAH_009052091	CUYAH_009053270	CUYAH_009054706
CUYAH_009052117	CUYAH_009053278	CUYAH_009054732
CUYAH_009052142	CUYAH_009053284	CUYAH_009054738
CUYAH_009052148	CUYAH_009053310	CUYAH_009054763
CUYAH_009052176	CUYAH_009053335	CUYAH_009054791
CUYAH_009052203	CUYAH_009053360	CUYAH_009054817
CUYAH_009052229	CUYAH_009053386	CUYAH_009054843
CUYAH_009052255	CUYAH_009053413	CUYAH_009054871
CUYAH_009052262	CUYAH_009053446	CUYAH_009054898
CUYAH_009052289	CUYAH_009053472	CUYAH_009054929
CUYAH_009052314	CUYAH_009053499	CUYAH_009054956
CUYAH_009052344	CUYAH_009053518	CUYAH_009054981
CUYAH_009052374	CUYAH_009053544	CUYAH_009055008
CUYAH_009052381	CUYAH_009053566	CUYAH_009055035
CUYAH_009052388	CUYAH_009053591	CUYAH_009055061
CUYAH_009052417	CUYAH_009053597	CUYAH_009055067
CUYAH_009052444	CUYAH_009053624	CUYAH_009055095
CUYAH_009052468	CUYAH_009053631	CUYAH_009055121
CUYAH_009052474	CUYAH_009053660	CUYAH_009055147
CUYAH_009052504	CUYAH_009053687	CUYAH_009055174
CUYAH_009052510	CUYAH_009053910	CUYAH_009055202
CUYAH_009052538	CUYAH_009053936	CUYAH_009055231
CUYAH_009052544	CUYAH_009053961	CUYAH_009055264
CUYAH_009052550	CUYAH_009053987	CUYAH_009055294
CUYAH_009052577	CUYAH_009054013	CUYAH_009055318

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_009055345	CUYAH_009056560	CUYAH_009057802
CUYAH_009055371	CUYAH_009056586	CUYAH_009057827
CUYAH_009055378	CUYAH_009056611	CUYAH_009057853
CUYAH_009055404	CUYAH_009056638	CUYAH_009057861
CUYAH_009055430	CUYAH_009056666	CUYAH_009057885
CUYAH_009055458	CUYAH_009056693	CUYAH_009057910
CUYAH_009055477	CUYAH_009056700	CUYAH_009057938
CUYAH_009055505	CUYAH_009056726	CUYAH_009057965
CUYAH_009055531	CUYAH_009056752	CUYAH_009057993
CUYAH_009055562	CUYAH_009056778	CUYAH_009058017
CUYAH_009055588	CUYAH_009056806	CUYAH_009058041
CUYAH_009055614	CUYAH_009056832	CUYAH_009058048
CUYAH_009055641	CUYAH_009056860	CUYAH_009058075
CUYAH_009055668	CUYAH_009056889	CUYAH_009058083
CUYAH_009055695	CUYAH_009056897	CUYAH_009058090
CUYAH_009055721	CUYAH_009056923	CUYAH_009058117
CUYAH_009055752	CUYAH_009056951	CUYAH_009058124
CUYAH_009055777	CUYAH_009056981	CUYAH_009058150
CUYAH_009055804	CUYAH_009056987	CUYAH_009058177
CUYAH_009055811	CUYAH_009057001	CUYAH_009058205
CUYAH_009055822	CUYAH_009057028	CUYAH_009058232
CUYAH_009055831	CUYAH_009057054	CUYAH_009058258
CUYAH_009055857	CUYAH_009057079	CUYAH_009058285
CUYAH_009055885	CUYAH_009057106	CUYAH_009058311
CUYAH_009055911	CUYAH_009057131	CUYAH_009058319
CUYAH_009055936	CUYAH_009057157	CUYAH_009058348
CUYAH_009055962	CUYAH_009057182	CUYAH_009058376
CUYAH_009055991	CUYAH_009057190	CUYAH_009058402
CUYAH_009056018	CUYAH_009057218	CUYAH_009058429
CUYAH_009056043	CUYAH_009057244	CUYAH_009058455
CUYAH_009056051	CUYAH_009057271	CUYAH_009058482
CUYAH_009056078	CUYAH_009057299	CUYAH_009058510
CUYAH_009056107	CUYAH_009057326	CUYAH_009058537
CUYAH_009056133	CUYAH_009057351	CUYAH_009058563
CUYAH_009056160	CUYAH_009057378	CUYAH_009058590
CUYAH_009056188	CUYAH_009057408	CUYAH_009058616
CUYAH_009056195	CUYAH_009057439	CUYAH_009058644
CUYAH_009056201	CUYAH_009057464	CUYAH_009058671
CUYAH_009056226	CUYAH_009057473	CUYAH_009058702
CUYAH_009056251	CUYAH_009057500	CUYAH_009058709
CUYAH_009056259	CUYAH_009057527	CUYAH_009058736
CUYAH_009056286	CUYAH_009057535	CUYAH_009058760
CUYAH_009056313	CUYAH_009057562	CUYAH_009058784
CUYAH_009056342	CUYAH_009057568	CUYAH_009058808
CUYAH_009056367	CUYAH_009057594	CUYAH_009058842
CUYAH_009056393	CUYAH_009057621	CUYAH_009058875
CUYAH_009056420	CUYAH_009057646	CUYAH_009058904
CUYAH_009056447	CUYAH_009057672	CUYAH_009058929
CUYAH_009056472	CUYAH_009057698	CUYAH_009058955
CUYAH_009056499	CUYAH_009057723	CUYAH_009058962
CUYAH_009056526	CUYAH_009057748	CUYAH_009058990
CUYAH_009056532	CUYAH_009057776	CUYAH_009059018

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_009059046	CUYAH_009060389	CUYAH_009061585
CUYAH_009059055	CUYAH_009060418	CUYAH_009061591
CUYAH_009059086	CUYAH_009060445	CUYAH_009061619
CUYAH_009059112	CUYAH_009060476	CUYAH_009061627
CUYAH_009059137	CUYAH_009060483	CUYAH_009061654
CUYAH_009059163	CUYAH_009060514	CUYAH_009061687
CUYAH_009059191	CUYAH_009060540	CUYAH_009061694
CUYAH_009059219	CUYAH_009060546	CUYAH_009061719
CUYAH_009059246	CUYAH_009060574	CUYAH_009061746
CUYAH_009059271	CUYAH_009060600	CUYAH_009061752
CUYAH_009059300	CUYAH_009060626	CUYAH_009061777
CUYAH_009059327	CUYAH_009060651	CUYAH_009061802
CUYAH_009059354	CUYAH_009060681	CUYAH_009061828
CUYAH_009059382	CUYAH_009060709	CUYAH_009062001
CUYAH_009059412	CUYAH_009060735	CUYAH_009062010
CUYAH_009059442	CUYAH_009060762	CUYAH_009062040
CUYAH_009059472	CUYAH_009060794	CUYAH_009062065
CUYAH_009059480	CUYAH_009060823	CUYAH_009062090
CUYAH_009059506	CUYAH_009060851	CUYAH_009062114
CUYAH_009059532	CUYAH_009060877	CUYAH_009062146
CUYAH_009059560	CUYAH_009060907	CUYAH_009062173
CUYAH_009059586	CUYAH_009060913	CUYAH_009062199
CUYAH_009059610	CUYAH_009060939	CUYAH_009062227
CUYAH_009059637	CUYAH_009060966	CUYAH_009062233
CUYAH_009059662	CUYAH_009060997	CUYAH_009062259
CUYAH_009059690	CUYAH_009061024	CUYAH_009062287
CUYAH_009059717	CUYAH_009061051	CUYAH_009062315
CUYAH_009059749	CUYAH_009061079	CUYAH_009062340
CUYAH_009059781	CUYAH_009061098	CUYAH_009062366
CUYAH_009059808	CUYAH_009061124	CUYAH_009062372
CUYAH_009059835	CUYAH_009061138	CUYAH_009062398
CUYAH_009059846	CUYAH_009061163	CUYAH_009062424
CUYAH_009059875	CUYAH_009061189	CUYAH_009062450
CUYAH_009059883	CUYAH_009061222	CUYAH_009062457
CUYAH_009059912	CUYAH_009061228	CUYAH_009062484
CUYAH_009059940	CUYAH_009061254	CUYAH_009062491
CUYAH_009059971	CUYAH_009061268	CUYAH_009062521
CUYAH_009059996	CUYAH_009061275	CUYAH_009062546
CUYAH_009060021	CUYAH_009061301	CUYAH_009062552
CUYAH_009060049	CUYAH_009061327	CUYAH_009062579
CUYAH_009060077	CUYAH_009061352	CUYAH_009062601
CUYAH_009060106	CUYAH_009061358	CUYAH_009062607
CUYAH_009060132	CUYAH_009061383	CUYAH_009062615
CUYAH_009060157	CUYAH_009061410	CUYAH_009062643
CUYAH_009060184	CUYAH_009061433	CUYAH_009062652
CUYAH_009060211	CUYAH_009061463	CUYAH_009062678
CUYAH_009060239	CUYAH_009061469	CUYAH_009062704
CUYAH_009060268	CUYAH_009061475	CUYAH_009062731
CUYAH_009060277	CUYAH_009061501	CUYAH_009062758
CUYAH_009060305	CUYAH_009061526	CUYAH_009062787
CUYAH_009060336	CUYAH_009061532	CUYAH_009062815
CUYAH_009060363	CUYAH_009061557	CUYAH_009062841

HIGHLY CONFIDENTIAL

Appendix 2

CUYAH_009062866	CUYAH_009487398	CUYAH_009487753
CUYAH_009062873	CUYAH_009487404	CUYAH_009487764
CUYAH_009062900	CUYAH_009487406	CUYAH_009487767
CUYAH_009062907	CUYAH_009487417	CUYAH_009487774
CUYAH_009062933	CUYAH_009487420	CUYAH_009487781
CUYAH_009062959	CUYAH_009487422	CUYAH_009487788
CUYAH_009062968	CUYAH_009487428	CUYAH_009487790
CUYAH_009062994	CUYAH_009487431	CUYAH_009487798
CUYAH_009063001	CUYAH_009487433	CUYAH_009487805
CUYAH_009063027	CUYAH_009487436	CUYAH_009487808
CUYAH_009063050	CUYAH_009487438	CUYAH_009487829
CUYAH_009063057	CUYAH_009487441	CUYAH_009487831
CUYAH_009063083	CUYAH_009487443	CUYAH_009487835
CUYAH_009063115	CUYAH_009487444	CUYAH_009487838
CUYAH_009063124	CUYAH_009487445	CUYAH_009487859
CUYAH_009063156	CUYAH_009487447	CUYAH_009487863
CUYAH_009063183	CUYAH_009487449	CUYAH_009487868
CUYAH_009063210	CUYAH_009487451	CUYAH_009487876
CUYAH_009063238	CUYAH_009487453	CUYAH_009487880
CUYAH_009063265	CUYAH_009487457	CUYAH_009487883
CUYAH_009063289	CUYAH_009487463	CUYAH_009487890
CUYAH_009063295	CUYAH_009487465	CUYAH_009487895
CUYAH_009063305	CUYAH_009487475	CUYAH_009487897
CUYAH_009063332	CUYAH_009487478	CUYAH_009487903
CUYAH_009063360	CUYAH_009487490	CUYAH_009487905
CUYAH_009063387	CUYAH_009487493	CUYAH_009487914
CUYAH_009063413	CUYAH_009487502	CUYAH_009487924
CUYAH_009063440	CUYAH_009487505	CUYAH_009487932
CUYAH_009063467	CUYAH_009487524	CUYAH_009487934
CUYAH_009063495	CUYAH_009487527	CUYAH_009487938
CUYAH_009063521	CUYAH_009487538	CUYAH_009487943
CUYAH_009063551	CUYAH_009487568	CUYAH_009487953
CUYAH_009063577	CUYAH_009487573	CUYAH_009487960
CUYAH_009063603	CUYAH_009487614	CUYAH_009487964
CUYAH_009063631	CUYAH_009487617	CUYAH_009487969
CUYAH_009063656	CUYAH_009487640	CUYAH_009487974
CUYAH_009063682	CUYAH_009487643	CUYAH_009487996
CUYAH_009136533	CUYAH_009487658	CUYAH_009487999
CUYAH_009480097	CUYAH_009487662	CUYAH_009488007
CUYAH_009487345	CUYAH_009487669	CUYAH_009488038
CUYAH_009487347	CUYAH_009487675	CUYAH_009488045
CUYAH_009487350	CUYAH_009487679	CUYAH_009488060
CUYAH_009487352	CUYAH_009487688	CUYAH_009488063
CUYAH_009487354	CUYAH_009487695	CUYAH_009488068
CUYAH_009487356	CUYAH_009487702	CUYAH_009488116
CUYAH_009487361	CUYAH_009487708	CUYAH_009488119
CUYAH_009487363	CUYAH_009487717	CUYAH_009488125
CUYAH_009487366	CUYAH_009487725	CUYAH_009488132
CUYAH_009487370	CUYAH_009487731	CUYAH_009488137
CUYAH_009487373	CUYAH_009487738	CUYAH_009488143
CUYAH_009487387	CUYAH_009487743	CUYAH_009488151
CUYAH_009487389	CUYAH_009487748	CUYAH_009488157

HIGHLY CONFIDENTIAL

Appendix 2

CUYAH_009488163	CUYAH_009488699	CUYAH_011624591
CUYAH_009488170	CUYAH_009488707	CUYAH_012341075
CUYAH_009488176	CUYAH_009488714	CUYAH_012341076
CUYAH_009488192	CUYAH_009488729	CUYAH_012341077
CUYAH_009488203	CUYAH_009488736	CUYAH_012343731
CUYAH_009488211	CUYAH_009488748	CUYAH_012343732
CUYAH_009488216	CUYAH_009488761	CUYAH_012344048
CUYAH_009488228	CUYAH_009488770	CUYAH_012344052
CUYAH_009488238	CUYAH_009488782	CUYAH_012357240
CUYAH_009488240	CUYAH_009488789	CUYAH_012357241
CUYAH_009488245	CUYAH_009488795	CUYAH_012582972
CUYAH_009488251	CUYAH_009488803	CUYAH_012582973
CUYAH_009488257	CUYAH_009488815	CUYAH_012692408
CUYAH_009488265	CUYAH_009488822	CUYAH_012969843
CUYAH_009488268	CUYAH_009488829	CUYAH_012969884
CUYAH_009488274	CUYAH_009488840	CUYAH_012969920
CUYAH_009488295	CUYAH_009488854	CUYAH_013470244
CUYAH_009488308	CUYAH_009488885	CUYAH_013538313
CUYAH_009488343	CUYAH_009488895	CUYAH_013542095
CUYAH_009488350	CUYAH_009488932	CUYAH_013543017
CUYAH_009488355	CUYAH_009488952	CUYAH_013543018
CUYAH_009488361	CUYAH_009488964	CUYAH_013543020
CUYAH_009488367	CUYAH_009488966	CUYAH_013611312
CUYAH_009488372	CUYAH_009488984	CUYAH_013611521
CUYAH_009488375	CUYAH_009488986	CUYAH_013614379
CUYAH_009488385	CUYAH_009488996	CUYAH_014627783
CUYAH_009488391	CUYAH_009488998	CUYAH_014627784
CUYAH_009488393	CUYAH_009489000	CUYAH_014627785
CUYAH_009488396	CUYAH_009489007	CUYAH_014627787
CUYAH_009488402	CUYAH_009489009	CUYAH_014627793
CUYAH_009488419	CUYAH_009489014	CUYAH_014627798
CUYAH_009488429	CUYAH_009489016	CUYAH_014627881
CUYAH_009488436	CUYAH_009489029	CUYAH_014627883
CUYAH_009488441	CUYAH_009489032	CUYAH_014627889
CUYAH_009488446	CUYAH_009489044	CUYAH_014627898
CUYAH_009488450	CUYAH_009489046	CUYAH_014627905
CUYAH_009488455	CUYAH_009489054	CUYAH_014627913
CUYAH_009488461	CUYAH_009489056	CUYAH_014627916
CUYAH_009488463	CUYAH_009489064	CUYAH_014627922
CUYAH_009488479	CUYAH_009489065	CUYAH_014627925
CUYAH_009488487	CUYAH_009489069	CUYAH_014627928
CUYAH_009488490	CUYAH_009489071	CUYAH_014627932
CUYAH_009488496	CUYAH_009489084	CUYAH_014627935
CUYAH_009488506	CUYAH_009489087	CUYAH_014627938
CUYAH_009488513	CUYAH_009489110	CUYAH_014627943
CUYAH_009488594	CUYAH_009489113	CUYAH_014627946
CUYAH_009488603	CUYAH_009489122	CUYAH_014627950
CUYAH_009488627	CUYAH_011395183	CUYAH_014627955
CUYAH_009488652	CUYAH_011622872	CUYAH_014627961
CUYAH_009488662	CUYAH_011623436	CUYAH_014627964
CUYAH_009488680	CUYAH_011624266	CUYAH_014627967
CUYAH_009488689	CUYAH_011624525	CUYAH_014627972

HIGHLY CONFIDENTIAL

Appendix 2

CUYAH_014627975	CUYAH_014628255	CUYAH_014628465
CUYAH_014627981	CUYAH_014628258	CUYAH_014628468
CUYAH_014627984	CUYAH_014628262	CUYAH_014628471
CUYAH_014628047	CUYAH_014628265	CUYAH_014628474
CUYAH_014628055	CUYAH_014628272	CUYAH_014628482
CUYAH_014628061	CUYAH_014628275	CUYAH_014628485
CUYAH_014628067	CUYAH_014628278	CUYAH_014628489
CUYAH_014628078	CUYAH_014628281	CUYAH_014628492
CUYAH_014628084	CUYAH_014628285	CUYAH_014628497
CUYAH_014628092	CUYAH_014628288	CUYAH_014628499
CUYAH_014628099	CUYAH_014628291	CUYAH_014628510
CUYAH_014628103	CUYAH_014628296	CUYAH_014628515
CUYAH_014628106	CUYAH_014628299	CUYAH_014628520
CUYAH_014628109	CUYAH_014628302	CUYAH_014628526
CUYAH_014628112	CUYAH_014628306	CUYAH_014628530
CUYAH_014628116	CUYAH_014628311	CUYAH_014628533
CUYAH_014628119	CUYAH_014628316	CUYAH_014628537
CUYAH_014628124	CUYAH_014628321	CUYAH_014628541
CUYAH_014628132	CUYAH_014628324	CUYAH_014628544
CUYAH_014628138	CUYAH_014628327	CUYAH_014628547
CUYAH_014628141	CUYAH_014628330	CUYAH_014628550
CUYAH_014628144	CUYAH_014628333	CUYAH_014628554
CUYAH_014628147	CUYAH_014628337	CUYAH_014628557
CUYAH_014628151	CUYAH_014628341	CUYAH_014628560
CUYAH_014628154	CUYAH_014628344	CUYAH_014628563
CUYAH_014628157	CUYAH_014628347	CUYAH_014628570
CUYAH_014628161	CUYAH_014628351	CUYAH_014628575
CUYAH_014628165	CUYAH_014628354	CUYAH_014628578
CUYAH_014628168	CUYAH_014628357	CUYAH_014628583
CUYAH_014628171	CUYAH_014628361	CUYAH_014628586
CUYAH_014628174	CUYAH_014628366	CUYAH_014628589
CUYAH_014628178	CUYAH_014628369	CUYAH_014628594
CUYAH_014628182	CUYAH_014628373	CUYAH_014628598
CUYAH_014628185	CUYAH_014628379	CUYAH_014628604
CUYAH_014628188	CUYAH_014628383	CUYAH_014628610
CUYAH_014628193	CUYAH_014628387	CUYAH_014628613
CUYAH_014628196	CUYAH_014628389	CUYAH_014628616
CUYAH_014628199	CUYAH_014628392	CUYAH_014628620
CUYAH_014628202	CUYAH_014628396	CUYAH_014628625
CUYAH_014628205	CUYAH_014628402	CUYAH_014628631
CUYAH_014628208	CUYAH_014628405	CUYAH_014628637
CUYAH_014628212	CUYAH_014628408	CUYAH_014628640
CUYAH_014628216	CUYAH_014628412	CUYAH_014628644
CUYAH_014628221	CUYAH_014628416	CUYAH_014628653
CUYAH_014628225	CUYAH_014628422	CUYAH_014628657
CUYAH_014628228	CUYAH_014628428	CUYAH_014628660
CUYAH_014628231	CUYAH_014628434	CUYAH_014628663
CUYAH_014628235	CUYAH_014628440	CUYAH_014628666
CUYAH_014628238	CUYAH_014628444	CUYAH_014628669
CUYAH_014628243	CUYAH_014628452	CUYAH_014628674
CUYAH_014628246	CUYAH_014628457	CUYAH_014628678
CUYAH_014628249	CUYAH_014628460	CUYAH_014628682

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_014628685	CUYAH_014628888	CUYAH_014629088
CUYAH_014628690	CUYAH_014628892	CUYAH_014629094
CUYAH_014628696	CUYAH_014628896	CUYAH_014629097
CUYAH_014628702	CUYAH_014628899	CUYAH_014629101
CUYAH_014628705	CUYAH_014628905	CUYAH_014629104
CUYAH_014628711	CUYAH_014628911	CUYAH_014629107
CUYAH_014628715	CUYAH_014628914	CUYAH_014629112
CUYAH_014628719	CUYAH_014628921	CUYAH_014629118
CUYAH_014628722	CUYAH_014628924	CUYAH_014629124
CUYAH_014628726	CUYAH_014628928	CUYAH_014629131
CUYAH_014628730	CUYAH_014628931	CUYAH_014629136
CUYAH_014628736	CUYAH_014628934	CUYAH_014629142
CUYAH_014628740	CUYAH_014628936	CUYAH_014629147
CUYAH_014628743	CUYAH_014628939	CUYAH_014629150
CUYAH_014628748	CUYAH_014628943	CUYAH_014629154
CUYAH_014628752	CUYAH_014628946	CUYAH_014629157
CUYAH_014628754	CUYAH_014628954	CUYAH_014629161
CUYAH_014628756	CUYAH_014628958	CUYAH_014629165
CUYAH_014628759	CUYAH_014628961	CUYAH_014629169
CUYAH_014628762	CUYAH_014628966	CUYAH_014629172
CUYAH_014628765	CUYAH_014628971	CUYAH_014629175
CUYAH_014628768	CUYAH_014628975	CUYAH_014629178
CUYAH_014628772	CUYAH_014628979	CUYAH_014629184
CUYAH_014628776	CUYAH_014628983	CUYAH_014629187
CUYAH_014628782	CUYAH_014628986	CUYAH_014629190
CUYAH_014628786	CUYAH_014628989	CUYAH_014629194
CUYAH_014628789	CUYAH_014628993	CUYAH_014629197
CUYAH_014628793	CUYAH_014628997	CUYAH_014629200
CUYAH_014628798	CUYAH_014629001	CUYAH_014629205
CUYAH_014628802	CUYAH_014629005	CUYAH_014629209
CUYAH_014628805	CUYAH_014629008	CUYAH_014629214
CUYAH_014628809	CUYAH_014629012	CUYAH_014629217
CUYAH_014628812	CUYAH_014629015	CUYAH_014629223
CUYAH_014628815	CUYAH_014629018	CUYAH_014629226
CUYAH_014628818	CUYAH_014629021	CUYAH_014629230
CUYAH_014628821	CUYAH_014629024	CUYAH_014629233
CUYAH_014628827	CUYAH_014629027	CUYAH_014629237
CUYAH_014628831	CUYAH_014629032	CUYAH_014629240
CUYAH_014628835	CUYAH_014629035	CUYAH_014629244
CUYAH_014628838	CUYAH_014629038	CUYAH_014629249
CUYAH_014628841	CUYAH_014629041	CUYAH_014629253
CUYAH_014628845	CUYAH_014629044	CUYAH_014629257
CUYAH_014628849	CUYAH_014629047	CUYAH_014629261
CUYAH_014628852	CUYAH_014629051	CUYAH_014629267
CUYAH_014628855	CUYAH_014629056	CUYAH_014629270
CUYAH_014628859	CUYAH_014629061	CUYAH_014629274
CUYAH_014628862	CUYAH_014629067	CUYAH_014629278
CUYAH_014628865	CUYAH_014629071	CUYAH_014629282
CUYAH_014628869	CUYAH_014629075	CUYAH_014629286
CUYAH_014628873	CUYAH_014629078	CUYAH_014629291
CUYAH_014628877	CUYAH_014629082	CUYAH_014629294
CUYAH_014628881	CUYAH_014629085	CUYAH_014629297

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_014629300	CUYAH_014629521	CUYAH_014629720
CUYAH_014629303	CUYAH_014629527	CUYAH_014629724
CUYAH_014629306	CUYAH_014629531	CUYAH_014629727
CUYAH_014629310	CUYAH_014629537	CUYAH_014629731
CUYAH_014629315	CUYAH_014629540	CUYAH_014629735
CUYAH_014629318	CUYAH_014629544	CUYAH_014629742
CUYAH_014629321	CUYAH_014629547	CUYAH_014629745
CUYAH_014629326	CUYAH_014629550	CUYAH_014629751
CUYAH_014629337	CUYAH_014629554	CUYAH_014629755
CUYAH_014629342	CUYAH_014629557	CUYAH_014629768
CUYAH_014629345	CUYAH_014629561	CUYAH_014629772
CUYAH_014629349	CUYAH_014629564	CUYAH_014629775
CUYAH_014629352	CUYAH_014629570	CUYAH_014629781
CUYAH_014629358	CUYAH_014629575	CUYAH_014629785
CUYAH_014629361	CUYAH_014629580	CUYAH_014629790
CUYAH_014629364	CUYAH_014629583	CUYAH_014629793
CUYAH_014629368	CUYAH_014629586	CUYAH_014629797
CUYAH_014629373	CUYAH_014629589	CUYAH_014629800
CUYAH_014629379	CUYAH_014629592	CUYAH_014629804
CUYAH_014629382	CUYAH_014629596	CUYAH_014629807
CUYAH_014629387	CUYAH_014629599	CUYAH_014629811
CUYAH_014629392	CUYAH_014629602	CUYAH_014629814
CUYAH_014629396	CUYAH_014629605	CUYAH_014629817
CUYAH_014629401	CUYAH_014629608	CUYAH_014629821
CUYAH_014629404	CUYAH_014629612	CUYAH_014629827
CUYAH_014629407	CUYAH_014629616	CUYAH_014629832
CUYAH_014629412	CUYAH_014629622	CUYAH_014629839
CUYAH_014629417	CUYAH_014629625	CUYAH_014629842
CUYAH_014629421	CUYAH_014629628	CUYAH_014629846
CUYAH_014629426	CUYAH_014629631	CUYAH_014629853
CUYAH_014629430	CUYAH_014629636	CUYAH_014629856
CUYAH_014629434	CUYAH_014629639	CUYAH_014629861
CUYAH_014629439	CUYAH_014629642	CUYAH_014629864
CUYAH_014629445	CUYAH_014629645	CUYAH_014629867
CUYAH_014629448	CUYAH_014629648	CUYAH_014629871
CUYAH_014629455	CUYAH_014629651	CUYAH_014629875
CUYAH_014629459	CUYAH_014629655	CUYAH_014629879
CUYAH_014629462	CUYAH_014629658	CUYAH_014629882
CUYAH_014629466	CUYAH_014629661	CUYAH_014629886
CUYAH_014629470	CUYAH_014629665	CUYAH_014629891
CUYAH_014629474	CUYAH_014629668	CUYAH_014629897
CUYAH_014629479	CUYAH_014629671	CUYAH_014629900
CUYAH_014629482	CUYAH_014629677	CUYAH_014629903
CUYAH_014629485	CUYAH_014629681	CUYAH_014629907
CUYAH_014629489	CUYAH_014629685	CUYAH_014629910
CUYAH_014629493	CUYAH_014629690	CUYAH_014629918
CUYAH_014629497	CUYAH_014629693	CUYAH_014629921
CUYAH_014629500	CUYAH_014629697	CUYAH_014629924
CUYAH_014629504	CUYAH_014629701	CUYAH_014629927
CUYAH_014629507	CUYAH_014629705	CUYAH_014629931
CUYAH_014629514	CUYAH_014629708	CUYAH_014629937
CUYAH_014629518	CUYAH_014629712	CUYAH_014629942

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_014629945	CUYAH_014630164	CUYAH_014630370
CUYAH_014629949	CUYAH_014630167	CUYAH_014630374
CUYAH_014629953	CUYAH_014630171	CUYAH_014630377
CUYAH_014629958	CUYAH_014630174	CUYAH_014630381
CUYAH_014629962	CUYAH_014630177	CUYAH_014630384
CUYAH_014629967	CUYAH_014630183	CUYAH_014630387
CUYAH_014629970	CUYAH_014630187	CUYAH_014630390
CUYAH_014629974	CUYAH_014630191	CUYAH_014630393
CUYAH_014629977	CUYAH_014630194	CUYAH_014630397
CUYAH_014629981	CUYAH_014630198	CUYAH_014630401
CUYAH_014629987	CUYAH_014630204	CUYAH_014630407
CUYAH_014629993	CUYAH_014630207	CUYAH_014630410
CUYAH_014629996	CUYAH_014630211	CUYAH_014630420
CUYAH_014630000	CUYAH_014630214	CUYAH_014630423
CUYAH_014630001	CUYAH_014630217	CUYAH_014630426
CUYAH_014630002	CUYAH_014630220	CUYAH_014630431
CUYAH_014630021	CUYAH_014630224	CUYAH_014630434
CUYAH_014630024	CUYAH_014630227	CUYAH_014630438
CUYAH_014630027	CUYAH_014630233	CUYAH_014630441
CUYAH_014630032	CUYAH_014630236	CUYAH_014630447
CUYAH_014630035	CUYAH_014630240	CUYAH_014630450
CUYAH_014630038	CUYAH_014630245	CUYAH_014630454
CUYAH_014630044	CUYAH_014630248	CUYAH_014630457
CUYAH_014630048	CUYAH_014630254	CUYAH_014630463
CUYAH_014630052	CUYAH_014630258	CUYAH_014630469
CUYAH_014630056	CUYAH_014630261	CUYAH_014630472
CUYAH_014630061	CUYAH_014630265	CUYAH_014630479
CUYAH_014630065	CUYAH_014630268	CUYAH_014630484
CUYAH_014630069	CUYAH_014630271	CUYAH_014630490
CUYAH_014630072	CUYAH_014630274	CUYAH_014630493
CUYAH_014630077	CUYAH_014630277	CUYAH_014630497
CUYAH_014630085	CUYAH_014630280	CUYAH_014630503
CUYAH_014630089	CUYAH_014630284	CUYAH_014630510
CUYAH_014630092	CUYAH_014630289	CUYAH_014630513
CUYAH_014630097	CUYAH_014630295	CUYAH_014630519
CUYAH_014630100	CUYAH_014630299	CUYAH_014630523
CUYAH_014630103	CUYAH_014630304	CUYAH_014630526
CUYAH_014630106	CUYAH_014630308	CUYAH_014630529
CUYAH_014630109	CUYAH_014630311	CUYAH_014630534
CUYAH_014630112	CUYAH_014630314	CUYAH_014630540
CUYAH_014630115	CUYAH_014630317	CUYAH_014630545
CUYAH_014630118	CUYAH_014630323	CUYAH_014630550
CUYAH_014630122	CUYAH_014630326	CUYAH_014630553
CUYAH_014630125	CUYAH_014630332	CUYAH_014630557
CUYAH_014630129	CUYAH_014630337	CUYAH_014630560
CUYAH_014630132	CUYAH_014630340	CUYAH_014630563
CUYAH_014630136	CUYAH_014630346	CUYAH_014630567
CUYAH_014630141	CUYAH_014630351	CUYAH_014630571
CUYAH_014630147	CUYAH_014630355	CUYAH_014630575
CUYAH_014630154	CUYAH_014630361	CUYAH_014630578
CUYAH_014630157	CUYAH_014630363	CUYAH_014630581
CUYAH_014630161	CUYAH_014630367	CUYAH_014630584

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_014630587	CUYAH_014631030	CUYAH_014631275
CUYAH_014630591	CUYAH_014631041	CUYAH_014631276
CUYAH_014630594	CUYAH_014631042	CUYAH_014631277
CUYAH_014630599	CUYAH_014631044	CUYAH_014631280
CUYAH_014630602	CUYAH_014631054	CUYAH_014631283
CUYAH_014630606	CUYAH_014631055	CUYAH_014631285
CUYAH_014630610	CUYAH_014631056	CUYAH_014631299
CUYAH_014630613	CUYAH_014631057	CUYAH_014631301
CUYAH_014630616	CUYAH_014631061	CUYAH_014631303
CUYAH_014630619	CUYAH_014631069	CUYAH_014631305
CUYAH_014630625	CUYAH_014631074	CUYAH_014631306
CUYAH_014630628	CUYAH_014631079	CUYAH_014631307
CUYAH_014630631	CUYAH_014631092	CUYAH_014631309
CUYAH_014630634	CUYAH_014631100	CUYAH_014631317
CUYAH_014630637	CUYAH_014631101	CUYAH_014631318
CUYAH_014630641	CUYAH_014631102	CUYAH_014631319
CUYAH_014630644	CUYAH_014631107	CUYAH_014631320
CUYAH_014630648	CUYAH_014631115	CUYAH_014631321
CUYAH_014630654	CUYAH_014631116	CUYAH_014631324
CUYAH_014630659	CUYAH_014631125	CUYAH_014631327
CUYAH_014630662	CUYAH_014631126	CUYAH_014631329
CUYAH_014630666	CUYAH_014631128	CUYAH_014631333
CUYAH_014630669	CUYAH_014631129	CUYAH_014631334
CUYAH_014630673	CUYAH_014631133	CUYAH_014631336
CUYAH_014630677	CUYAH_014631141	CUYAH_014631340
CUYAH_014630680	CUYAH_014631142	CUYAH_014631342
CUYAH_014630684	CUYAH_014631143	CUYAH_014631345
CUYAH_014630687	CUYAH_014631144	CUYAH_014631350
CUYAH_014630941	CUYAH_014631145	CUYAH_014631358
CUYAH_014630948	CUYAH_014631147	CUYAH_014631359
CUYAH_014630960	CUYAH_014631148	CUYAH_014631367
CUYAH_014630969	CUYAH_014631164	CUYAH_014631368
CUYAH_014630979	CUYAH_014631181	CUYAH_014631370
CUYAH_014630981	CUYAH_014631183	CUYAH_014631374
CUYAH_014630983	CUYAH_014631185	CUYAH_014631375
CUYAH_014630984	CUYAH_014631187	CUYAH_014631376
CUYAH_014630987	CUYAH_014631195	CUYAH_014631377
CUYAH_014630991	CUYAH_014631200	CUYAH_014631378
CUYAH_014630995	CUYAH_014631201	CUYAH_014631379
CUYAH_014630996	CUYAH_014631206	CUYAH_014631381
CUYAH_014630997	CUYAH_014631212	CUYAH_014631383
CUYAH_014630998	CUYAH_014631217	CUYAH_014631385
CUYAH_014630999	CUYAH_014631219	CUYAH_014631386
CUYAH_014631000	CUYAH_014631239	CUYAH_014631388
CUYAH_014631001	CUYAH_014631250	CUYAH_014631397
CUYAH_014631002	CUYAH_014631254	CUYAH_014631398
CUYAH_014631003	CUYAH_014631256	CUYAH_014631399
CUYAH_014631004	CUYAH_014631258	CUYAH_014631401
CUYAH_014631005	CUYAH_014631259	CUYAH_014631402
CUYAH_014631006	CUYAH_014631262	CUYAH_014631404
CUYAH_014631007	CUYAH_014631269	CUYAH_014631405
CUYAH_014631024	CUYAH_014631274	CUYAH_014631407

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_014631409	CUYAH_014631587	CUYAH_014631807
CUYAH_014631416	CUYAH_014631588	CUYAH_014631812
CUYAH_014631417	CUYAH_014631589	CUYAH_014631813
CUYAH_014631418	CUYAH_014631590	CUYAH_014631815
CUYAH_014631420	CUYAH_014631591	CUYAH_014631816
CUYAH_014631422	CUYAH_014631592	CUYAH_014631817
CUYAH_014631427	CUYAH_014631593	CUYAH_014631819
CUYAH_014631428	CUYAH_014631594	CUYAH_014631839
CUYAH_014631429	CUYAH_014631613	CUYAH_014631840
CUYAH_014631430	CUYAH_014631616	CUYAH_014631841
CUYAH_014631431	CUYAH_014631620	CUYAH_014631844
CUYAH_014631432	CUYAH_014631622	CUYAH_014631851
CUYAH_014631433	CUYAH_014631630	CUYAH_014631853
CUYAH_014631434	CUYAH_014631646	CUYAH_014631855
CUYAH_014631435	CUYAH_014631676	CUYAH_014631856
CUYAH_014631437	CUYAH_014631687	CUYAH_014631857
CUYAH_014631439	CUYAH_014631696	CUYAH_014631863
CUYAH_014631440	CUYAH_014631710	CUYAH_014631864
CUYAH_014631454	CUYAH_014631726	CUYAH_014631868
CUYAH_014631456	CUYAH_014631730	CUYAH_014631872
CUYAH_014631458	CUYAH_014631731	CUYAH_014631875
CUYAH_014631459	CUYAH_014631732	CUYAH_014631876
CUYAH_014631460	CUYAH_014631733	CUYAH_014631877
CUYAH_014631461	CUYAH_014631734	CUYAH_014631878
CUYAH_014631465	CUYAH_014631735	CUYAH_014631880
CUYAH_014631489	CUYAH_014631736	CUYAH_014631884
CUYAH_014631506	CUYAH_014631737	CUYAH_014631885
CUYAH_014631515	CUYAH_014631738	CUYAH_014631888
CUYAH_014631517	CUYAH_014631739	CUYAH_014631891
CUYAH_014631520	CUYAH_014631746	CUYAH_014631892
CUYAH_014631528	CUYAH_014631750	CUYAH_014631893
CUYAH_014631534	CUYAH_014631751	CUYAH_014631894
CUYAH_014631542	CUYAH_014631753	CUYAH_014631895
CUYAH_014631552	CUYAH_014631758	CUYAH_014631896
CUYAH_014631553	CUYAH_014631763	CUYAH_014631897
CUYAH_014631557	CUYAH_014631768	CUYAH_014631899
CUYAH_014631560	CUYAH_014631770	CUYAH_014631917
CUYAH_014631563	CUYAH_014631771	CUYAH_014631919
CUYAH_014631565	CUYAH_014631772	CUYAH_014631925
CUYAH_014631568	CUYAH_014631775	CUYAH_014631930
CUYAH_014631569	CUYAH_014631779	CUYAH_014631947
CUYAH_014631570	CUYAH_014631785	CUYAH_014631953
CUYAH_014631573	CUYAH_014631787	CUYAH_014631954
CUYAH_014631575	CUYAH_014631789	CUYAH_014631955
CUYAH_014631577	CUYAH_014631790	CUYAH_014631962
CUYAH_014631580	CUYAH_014631796	CUYAH_014631969
CUYAH_014631581	CUYAH_014631797	CUYAH_014631971
CUYAH_014631582	CUYAH_014631802	CUYAH_014631973
CUYAH_014631583	CUYAH_014631803	CUYAH_014631975
CUYAH_014631584	CUYAH_014631804	CUYAH_014631977
CUYAH_014631585	CUYAH_014631805	CUYAH_014631982
CUYAH_014631586	CUYAH_014631806	CUYAH_014632002

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_014632005	CUYAH_014632188	CUYAH_014632539
CUYAH_014632016	CUYAH_014632191	CUYAH_014632540
CUYAH_014632022	CUYAH_014632194	CUYAH_014632542
CUYAH_014632023	CUYAH_014632199	CUYAH_014632545
CUYAH_014632024	CUYAH_014632201	CUYAH_014632549
CUYAH_014632027	CUYAH_014632202	CUYAH_014632551
CUYAH_014632032	CUYAH_014632204	CUYAH_014632553
CUYAH_014632046	CUYAH_014632219	CUYAH_014632555
CUYAH_014632054	CUYAH_014632220	CUYAH_014632557
CUYAH_014632060	CUYAH_014632225	CUYAH_014632559
CUYAH_014632072	CUYAH_014632229	CUYAH_014632560
CUYAH_014632078	CUYAH_014632230	CUYAH_014632561
CUYAH_014632086	CUYAH_014632287	CUYAH_014632566
CUYAH_014632100	CUYAH_014632294	CUYAH_014632568
CUYAH_014632102	CUYAH_014632315	CUYAH_014632569
CUYAH_014632103	CUYAH_014632360	CUYAH_014632590
CUYAH_014632110	CUYAH_014632365	CUYAH_014632596
CUYAH_014632111	CUYAH_014632368	CUYAH_014632597
CUYAH_014632112	CUYAH_014632370	CUYAH_014632598
CUYAH_014632115	CUYAH_014632383	CUYAH_014632599
CUYAH_014632118	CUYAH_014632384	CUYAH_014632600
CUYAH_014632123	CUYAH_014632399	CUYAH_014632610
CUYAH_014632125	CUYAH_014632406	CUYAH_014632612
CUYAH_014632128	CUYAH_014632419	CUYAH_014632614
CUYAH_014632129	CUYAH_014632421	CUYAH_014632615
CUYAH_014632130	CUYAH_014632423	CUYAH_014632616
CUYAH_014632131	CUYAH_014632425	CUYAH_014632617
CUYAH_014632132	CUYAH_014632427	CUYAH_014632628
CUYAH_014632133	CUYAH_014632436	CUYAH_014632635
CUYAH_014632134	CUYAH_014632448	CUYAH_014632643
CUYAH_014632135	CUYAH_014632454	CUYAH_014632662
CUYAH_014632150	CUYAH_014632455	CUYAH_014632688
CUYAH_014632151	CUYAH_014632458	CUYAH_014632719
CUYAH_014632156	CUYAH_014632468	CUYAH_014632774
CUYAH_014632160	CUYAH_014632469	CUYAH_014632776
CUYAH_014632161	CUYAH_014632470	CUYAH_014632786
CUYAH_014632162	CUYAH_014632471	CUYAH_014632795
CUYAH_014632163	CUYAH_014632486	CUYAH_014632806
CUYAH_014632164	CUYAH_014632498	CUYAH_014632816
CUYAH_014632165	CUYAH_014632507	CUYAH_014632824
CUYAH_014632166	CUYAH_014632515	CUYAH_014632825
CUYAH_014632167	CUYAH_014632519	CUYAH_014632828
CUYAH_014632168	CUYAH_014632527	CUYAH_014632833
CUYAH_014632169	CUYAH_014632528	CUYAH_014632835
CUYAH_014632170	CUYAH_014632530	CUYAH_014632840
CUYAH_014632171	CUYAH_014632531	CUYAH_014632843
CUYAH_014632172	CUYAH_014632533	CUYAH_014632849
CUYAH_014632173	CUYAH_014632534	CUYAH_014632852
CUYAH_014632181	CUYAH_014632535	CUYAH_014632853
CUYAH_014632182	CUYAH_014632536	CUYAH_014632854
CUYAH_014632185	CUYAH_014632537	CUYAH_014632855
CUYAH_014632187	CUYAH_014632538	CUYAH_014632856

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_014632857	CUYAH_014633360	CUYAH_014633521
CUYAH_014632859	CUYAH_014633369	CUYAH_014633524
CUYAH_014632861	CUYAH_014633371	CUYAH_014633525
CUYAH_014632869	CUYAH_014633372	CUYAH_014633526
CUYAH_014632875	CUYAH_014633377	CUYAH_014633545
CUYAH_014632877	CUYAH_014633381	CUYAH_014633559
CUYAH_014632878	CUYAH_014633384	CUYAH_014633612
CUYAH_014632896	CUYAH_014633387	CUYAH_014633665
CUYAH_014632907	CUYAH_014633408	CUYAH_014633690
CUYAH_014632909	CUYAH_014633409	CUYAH_014633750
CUYAH_014632911	CUYAH_014633410	CUYAH_014633751
CUYAH_014632912	CUYAH_014633411	CUYAH_014633781
CUYAH_014632935	CUYAH_014633412	CUYAH_014633830
CUYAH_014632959	CUYAH_014633413	CUYAH_014633846
CUYAH_014632964	CUYAH_014633415	CUYAH_014633881
CUYAH_014632968	CUYAH_014633422	CUYAH_014634021
CUYAH_014632972	CUYAH_014633423	CUYAH_014634056
CUYAH_014632973	CUYAH_014633424	CUYAH_014634090
CUYAH_014632974	CUYAH_014633428	CUYAH_014634105
CUYAH_014632997	CUYAH_014633429	CUYAH_014634124
CUYAH_014632998	CUYAH_014633431	CUYAH_014634150
CUYAH_014633001	CUYAH_014633432	CUYAH_014634151
CUYAH_014633004	CUYAH_014633437	CUYAH_014634209
CUYAH_014633007	CUYAH_014633438	CUYAH_014634308
CUYAH_014633012	CUYAH_014633439	CUYAH_014634417
CUYAH_014633013	CUYAH_014633447	CUYAH_014634430
CUYAH_014633014	CUYAH_014633449	CUYAH_014634458
CUYAH_014633015	CUYAH_014633450	CUYAH_014634507
CUYAH_014633020	CUYAH_014633460	CUYAH_014634543
CUYAH_014633027	CUYAH_014633461	CUYAH_014634590
CUYAH_014633030	CUYAH_014633462	CUYAH_014634745
CUYAH_014633035	CUYAH_014633464	CUYAH_014634784
CUYAH_014633043	CUYAH_014633478	CUYAH_014634785
CUYAH_014633046	CUYAH_014633481	CUYAH_014634822
CUYAH_014633047	CUYAH_014633482	CUYAH_014634859
CUYAH_014633051	CUYAH_014633485	CUYAH_014635049
CUYAH_014633083	CUYAH_014633486	CUYAH_014635050
CUYAH_014633085	CUYAH_014633487	CUYAH_014635051
CUYAH_014633095	CUYAH_014633488	CUYAH_014635052
CUYAH_014633104	CUYAH_014633489	CUYAH_014635053
CUYAH_014633262	CUYAH_014633490	CUYAH_014635093
CUYAH_014633303	CUYAH_014633491	CUYAH_014635128
CUYAH_014633310	CUYAH_014633493	CUYAH_014635206
CUYAH_014633311	CUYAH_014633494	CUYAH_014635207
CUYAH_014633313	CUYAH_014633495	CUYAH_014635278
CUYAH_014633326	CUYAH_014633496	CUYAH_014635507
CUYAH_014633328	CUYAH_014633503	CUYAH_014635508
CUYAH_014633329	CUYAH_014633504	CUYAH_014635677
CUYAH_014633330	CUYAH_014633513	CUYAH_014635681
CUYAH_014633334	CUYAH_014633515	CUYAH_014635686
CUYAH_014633342	CUYAH_014633517	CUYAH_014635729
CUYAH_014633351	CUYAH_014633518	CUYAH_014635732

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_014635816	CUYAH_015662509	CUYAH_015662619
CUYAH_014635821	CUYAH_015662510	CUYAH_015662621
CUYAH_014635838	CUYAH_015662511	CUYAH_015662623
CUYAH_014635842	CUYAH_015662512	CUYAH_015662625
CUYAH_014635844	CUYAH_015662514	CUYAH_015662627
CUYAH_014635929	CUYAH_015662515	CUYAH_015662629
CUYAH_014635931	CUYAH_015662517	CUYAH_015662632
CUYAH_014635933	CUYAH_015662519	CUYAH_015662635
CUYAH_014635938	CUYAH_015662522	CUYAH_015662637
CUYAH_014635999	CUYAH_015662525	CUYAH_015662638
CUYAH_014636003	CUYAH_015662528	CUYAH_015662639
CUYAH_014636098	CUYAH_015662530	CUYAH_015662641
CUYAH_014636100	CUYAH_015662532	CUYAH_015662643
CUYAH_014636264	CUYAH_015662534	CUYAH_015662646
CUYAH_014636267	CUYAH_015662537	CUYAH_015662648
CUYAH_014636315	CUYAH_015662540	CUYAH_015662650
CUYAH_014636368	CUYAH_015662541	CUYAH_015662652
CUYAH_014636451	CUYAH_015662542	CUYAH_015662654
CUYAH_015659974	CUYAH_015662543	CUYAH_015662656
CUYAH_015659978	CUYAH_015662545	CUYAH_015662659
CUYAH_015662438	CUYAH_015662547	CUYAH_015662660
CUYAH_015662439	CUYAH_015662549	CUYAH_015662663
CUYAH_015662442	CUYAH_015662551	CUYAH_015662665
CUYAH_015662445	CUYAH_015662554	CUYAH_015662667
CUYAH_015662448	CUYAH_015662556	CUYAH_015662672
CUYAH_015662450	CUYAH_015662559	CUYAH_015662674
CUYAH_015662452	CUYAH_015662562	CUYAH_015662677
CUYAH_015662454	CUYAH_015662564	CUYAH_015662680
CUYAH_015662456	CUYAH_015662566	CUYAH_015662682
CUYAH_015662458	CUYAH_015662568	CUYAH_015662685
CUYAH_015662460	CUYAH_015662571	CUYAH_015662688
CUYAH_015662462	CUYAH_015662574	CUYAH_015662690
CUYAH_015662464	CUYAH_015662577	CUYAH_015662693
CUYAH_015662467	CUYAH_015662580	CUYAH_015662695
CUYAH_015662469	CUYAH_015662582	CUYAH_015662697
CUYAH_015662471	CUYAH_015662584	CUYAH_015662699
CUYAH_015662474	CUYAH_015662586	CUYAH_015662701
CUYAH_015662476	CUYAH_015662588	CUYAH_015662704
CUYAH_015662478	CUYAH_015662590	CUYAH_015662706
CUYAH_015662481	CUYAH_015662592	CUYAH_015662707
CUYAH_015662484	CUYAH_015662593	CUYAH_015662709
CUYAH_015662486	CUYAH_015662595	CUYAH_015662711
CUYAH_015662488	CUYAH_015662598	CUYAH_015662713
CUYAH_015662491	CUYAH_015662601	CUYAH_015662715
CUYAH_015662494	CUYAH_015662603	CUYAH_015662718
CUYAH_015662496	CUYAH_015662605	CUYAH_015662720
CUYAH_015662498	CUYAH_015662607	CUYAH_015662722
CUYAH_015662501	CUYAH_015662609	CUYAH_015662725
CUYAH_015662504	CUYAH_015662611	CUYAH_015662727
CUYAH_015662506	CUYAH_015662612	CUYAH_015662731
CUYAH_015662507	CUYAH_015662614	CUYAH_015662735
CUYAH_015662508	CUYAH_015662617	CUYAH_015662738

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_015662739	CUYAH_015662858	CUYAH_015662959
CUYAH_015662740	CUYAH_015662860	CUYAH_015662961
CUYAH_015662741	CUYAH_015662862	CUYAH_015662963
CUYAH_015662753	CUYAH_015662864	CUYAH_015662965
CUYAH_015662759	CUYAH_015662866	CUYAH_015662967
CUYAH_015662766	CUYAH_015662868	CUYAH_015662968
CUYAH_015662768	CUYAH_015662870	CUYAH_015662970
CUYAH_015662770	CUYAH_015662872	CUYAH_015662972
CUYAH_015662772	CUYAH_015662874	CUYAH_015662974
CUYAH_015662774	CUYAH_015662876	CUYAH_015662976
CUYAH_015662776	CUYAH_015662878	CUYAH_015662978
CUYAH_015662778	CUYAH_015662880	CUYAH_015662980
CUYAH_015662780	CUYAH_015662882	CUYAH_015662982
CUYAH_015662781	CUYAH_015662884	CUYAH_015691864
CUYAH_015662783	CUYAH_015662886	CUYAH_015695431
CUYAH_015662786	CUYAH_015662888	CUYAH_015714102
CUYAH_015662788	CUYAH_015662890	CUYAH_015723362
CUYAH_015662790	CUYAH_015662892	CUYAH_015734669
CUYAH_015662792	CUYAH_015662894	CUYAH_015736247
CUYAH_015662794	CUYAH_015662896	CUYAH_015756437
CUYAH_015662797	CUYAH_015662898	CUYAH_015757086
CUYAH_015662798	CUYAH_015662900	CUYAH_015757093
CUYAH_015662800	CUYAH_015662902	CUYAH_015757920
CUYAH_015662802	CUYAH_015662904	CUYAH_015758196
CUYAH_015662804	CUYAH_015662906	CUYAH_015764655
CUYAH_015662806	CUYAH_015662908	CUYAH_015767895
CUYAH_015662808	CUYAH_015662910	CUYAH_015767898
CUYAH_015662810	CUYAH_015662911	CUYAH_015767899
CUYAH_015662812	CUYAH_015662913	CUYAH_015772427
CUYAH_015662813	CUYAH_015662915	CUYAH_015821804
CUYAH_015662815	CUYAH_015662916	CUYAH_015880511
CUYAH_015662817	CUYAH_015662918	CUYAH_015880512
CUYAH_015662819	CUYAH_015662920	CUYAH_015880513
CUYAH_015662821	CUYAH_015662922	CUYAH_015880514
CUYAH_015662823	CUYAH_015662924	CUYAH_015880515
CUYAH_015662824	CUYAH_015662926	CUYAH_015880516
CUYAH_015662826	CUYAH_015662928	CUYAH_015880517
CUYAH_015662828	CUYAH_015662930	CUYAH_015880518
CUYAH_015662830	CUYAH_015662932	CUYAH_015880519
CUYAH_015662832	CUYAH_015662934	CUYAH_015880520
CUYAH_015662834	CUYAH_015662936	CUYAH_015880521
CUYAH_015662836	CUYAH_015662938	CUYAH_015880522
CUYAH_015662838	CUYAH_015662940	CUYAH_015880523
CUYAH_015662840	CUYAH_015662942	CUYAH_015880524
CUYAH_015662842	CUYAH_015662944	CUYAH_015880525
CUYAH_015662844	CUYAH_015662945	CUYAH_015880526
CUYAH_015662846	CUYAH_015662947	CUYAH_015880527
CUYAH_015662848	CUYAH_015662949	CUYAH_015880528
CUYAH_015662850	CUYAH_015662951	CUYAH_015880529
CUYAH_015662852	CUYAH_015662953	CUYAH_015880530
CUYAH_015662854	CUYAH_015662955	CUYAH_015880531
CUYAH_015662856	CUYAH_015662957	CUYAH_015880532

HIGHLY CONFIDENTIAL

Appendix 2

CUYAH_015880533	CUYAH_015880585	CUYAH_015880637
CUYAH_015880534	CUYAH_015880586	CUYAH_015880638
CUYAH_015880535	CUYAH_015880587	CUYAH_015880639
CUYAH_015880536	CUYAH_015880588	CUYAH_015880640
CUYAH_015880537	CUYAH_015880589	CUYAH_015880641
CUYAH_015880538	CUYAH_015880590	CUYAH_015880642
CUYAH_015880539	CUYAH_015880591	CUYAH_015880643
CUYAH_015880540	CUYAH_015880592	CUYAH_015880644
CUYAH_015880541	CUYAH_015880593	CUYAH_015880652
CUYAH_015880542	CUYAH_015880594	CUYAH_015880653
CUYAH_015880543	CUYAH_015880595	CUYAH_015880654
CUYAH_015880544	CUYAH_015880596	CUYAH_015880655
CUYAH_015880545	CUYAH_015880597	CUYAH_015880656
CUYAH_015880546	CUYAH_015880598	CUYAH_015880657
CUYAH_015880547	CUYAH_015880599	CUYAH_015880658
CUYAH_015880548	CUYAH_015880600	CUYAH_015880659
CUYAH_015880549	CUYAH_015880601	CUYAH_015880660
CUYAH_015880550	CUYAH_015880602	CUYAH_015880661
CUYAH_015880551	CUYAH_015880603	CUYAH_015880662
CUYAH_015880552	CUYAH_015880604	CUYAH_015880663
CUYAH_015880553	CUYAH_015880605	CUYAH_015880664
CUYAH_015880554	CUYAH_015880606	CUYAH_015880665
CUYAH_015880555	CUYAH_015880607	CUYAH_015880666
CUYAH_015880556	CUYAH_015880608	CUYAH_015880667
CUYAH_015880557	CUYAH_015880609	CUYAH_015880668
CUYAH_015880558	CUYAH_015880610	CUYAH_015880669
CUYAH_015880559	CUYAH_015880611	CUYAH_015880670
CUYAH_015880560	CUYAH_015880612	CUYAH_015880671
CUYAH_015880561	CUYAH_015880613	CUYAH_015880672
CUYAH_015880562	CUYAH_015880614	CUYAH_015880673
CUYAH_015880563	CUYAH_015880615	CUYAH_015880674
CUYAH_015880564	CUYAH_015880616	CUYAH_015880675
CUYAH_015880565	CUYAH_015880617	CUYAH_015880676
CUYAH_015880566	CUYAH_015880618	CUYAH_015880677
CUYAH_015880567	CUYAH_015880619	CUYAH_015880678
CUYAH_015880568	CUYAH_015880620	CUYAH_015880679
CUYAH_015880569	CUYAH_015880621	CUYAH_015880680
CUYAH_015880570	CUYAH_015880622	CUYAH_015880681
CUYAH_015880571	CUYAH_015880623	CUYAH_015880682
CUYAH_015880572	CUYAH_015880624	CUYAH_015880683
CUYAH_015880573	CUYAH_015880625	CUYAH_015880684
CUYAH_015880574	CUYAH_015880626	CUYAH_015880685
CUYAH_015880575	CUYAH_015880627	CUYAH_015880686
CUYAH_015880576	CUYAH_015880628	CUYAH_015880687
CUYAH_015880577	CUYAH_015880629	CUYAH_015880688
CUYAH_015880578	CUYAH_015880630	CUYAH_015880689
CUYAH_015880579	CUYAH_015880631	CUYAH_015880690
CUYAH_015880580	CUYAH_015880632	CUYAH_015880691
CUYAH_015880581	CUYAH_015880633	CUYAH_015880692
CUYAH_015880582	CUYAH_015880634	CUYAH_015880693
CUYAH_015880583	CUYAH_015880635	CUYAH_015880694
CUYAH_015880584	CUYAH_015880636	CUYAH_015880695

HIGHLY CONFIDENTIAL

Appendix 2

CUYAH_015880696	CUYAH_016477746	CUYAH_016494449
CUYAH_015880697	CUYAH_016477749	CUYAH_016494462
CUYAH_015880698	CUYAH_016482214	CUYAH_016494471
CUYAH_015880699	CUYAH_016487354	CUYAH_016494478
CUYAH_015880700	CUYAH_016487355	CUYAH_016494484
CUYAH_015880701	CUYAH_016487356	CUYAH_016494486
CUYAH_015880702	CUYAH_016487368	CUYAH_016494495
CUYAH_015880703	CUYAH_016487369	CUYAH_016494506
CUYAH_015880704	CUYAH_016488431	CUYAH_016494515
CUYAH_015880705	CUYAH_016488433	CUYAH_016494524
CUYAH_015880706	CUYAH_016488999	CUYAH_016494533
CUYAH_015880707	CUYAH_016489001	CUYAH_016494540
CUYAH_015880708	CUYAH_016492592	CUYAH_016494551
CUYAH_015880709	CUYAH_016492593	CUYAH_016494560
CUYAH_015880710	CUYAH_016493508	CUYAH_016494569
CUYAH_015880711	CUYAH_016493510	CUYAH_016494579
CUYAH_015880712	CUYAH_016493530	CUYAH_016494588
CUYAH_015880713	CUYAH_016493553	CUYAH_016494597
CUYAH_015880714	CUYAH_016493573	CUYAH_016494607
CUYAH_015880715	CUYAH_016493591	CUYAH_016494608
CUYAH_015880716	CUYAH_016493593	CUYAH_016494626
CUYAH_015880717	CUYAH_016493611	CUYAH_016494680
CUYAH_015880718	CUYAH_016493625	CUYAH_016494685
CUYAH_015880719	CUYAH_016493646	CUYAH_016494696
CUYAH_015880720	CUYAH_016493669	CUYAH_016494697
CUYAH_015880721	CUYAH_016493686	CUYAH_016494712
CUYAH_015880722	CUYAH_016493720	CUYAH_016494725
CUYAH_015880723	CUYAH_016493741	CUYAH_016494734
CUYAH_015880724	CUYAH_016493767	CUYAH_016494743
CUYAH_015880725	CUYAH_016493783	CUYAH_016494761
CUYAH_015880726	CUYAH_016493784	CUYAH_016494779
CUYAH_015880727	CUYAH_016493788	CUYAH_016494787
CUYAH_015880728	CUYAH_016493796	CUYAH_016494799
CUYAH_015880730	CUYAH_016493799	CUYAH_016494809
CUYAH_015880732	CUYAH_016493803	CUYAH_016494816
CUYAH_015880953	CUYAH_016493807	CUYAH_016494836
CUYAH_016415323	CUYAH_016493808	CUYAH_016494855
CUYAH_016433196	CUYAH_016493812	CUYAH_016494873
CUYAH_016477710	CUYAH_016493826	CUYAH_016494885
CUYAH_016477711	CUYAH_016493827	CUYAH_016494901
CUYAH_016477712	CUYAH_016493834	CUYAH_016494911
CUYAH_016477713	CUYAH_016494298	CUYAH_016494912
CUYAH_016477714	CUYAH_016494299	CUYAH_016494913
CUYAH_016477717	CUYAH_016494311	CUYAH_016494914
CUYAH_016477720	CUYAH_016494329	CUYAH_016494930
CUYAH_016477723	CUYAH_016494351	CUYAH_016494948
CUYAH_016477727	CUYAH_016494368	CUYAH_016494961
CUYAH_016477733	CUYAH_016494387	CUYAH_016494970
CUYAH_016477734	CUYAH_016494402	CUYAH_016494988
CUYAH_016477737	CUYAH_016494415	CUYAH_016495008
CUYAH_016477740	CUYAH_016494435	CUYAH_016495027
CUYAH_016477743	CUYAH_016494448	CUYAH_016495042

HIGHLY CONFIDENTIAL

Appendix 2

CUYAH_016495049	CUYAH_016502739	CUYAH_016502807
CUYAH_016495067	CUYAH_016502741	CUYAH_016502808
CUYAH_016495079	CUYAH_016502743	CUYAH_016502810
CUYAH_016495089	CUYAH_016502746	CUYAH_016502811
CUYAH_016495097	CUYAH_016502747	CUYAH_016502812
CUYAH_016495106	CUYAH_016502749	CUYAH_016502813
CUYAH_016495116	CUYAH_016502752	CUYAH_016502814
CUYAH_016495128	CUYAH_016502754	CUYAH_016502815
CUYAH_016495129	CUYAH_016502757	CUYAH_016502816
CUYAH_016495182	CUYAH_016502759	CUYAH_016502817
CUYAH_016495183	CUYAH_016502761	CUYAH_016502818
CUYAH_016495184	CUYAH_016502764	CUYAH_016502819
CUYAH_016495197	CUYAH_016502765	CUYAH_016502820
CUYAH_016495207	CUYAH_016502766	CUYAH_016502821
CUYAH_016495226	CUYAH_016502767	CUYAH_016502822
CUYAH_016495238	CUYAH_016502768	CUYAH_016502823
CUYAH_016495250	CUYAH_016502769	CUYAH_016502824
CUYAH_016495265	CUYAH_016502770	CUYAH_016502825
CUYAH_016495283	CUYAH_016502771	CUYAH_016502826
CUYAH_016495292	CUYAH_016502772	CUYAH_016502827
CUYAH_016495299	CUYAH_016502773	CUYAH_016502828
CUYAH_016495307	CUYAH_016502775	CUYAH_016502829
CUYAH_016495325	CUYAH_016502776	CUYAH_016502830
CUYAH_016495335	CUYAH_016502777	CUYAH_016502831
CUYAH_016495351	CUYAH_016502778	CUYAH_016502832
CUYAH_016495360	CUYAH_016502779	CUYAH_016502833
CUYAH_016495380	CUYAH_016502780	CUYAH_016502834
CUYAH_016495398	CUYAH_016502781	CUYAH_016502835
CUYAH_016502369	CUYAH_016502782	CUYAH_016502836
CUYAH_016502370	CUYAH_016502783	CUYAH_016502837
CUYAH_016502697	CUYAH_016502784	CUYAH_016502838
CUYAH_016502698	CUYAH_016502785	CUYAH_016502839
CUYAH_016502699	CUYAH_016502786	CUYAH_016502840
CUYAH_016502700	CUYAH_016502787	CUYAH_016502841
CUYAH_016502701	CUYAH_016502788	CUYAH_016502844
CUYAH_016502703	CUYAH_016502789	CUYAH_016502845
CUYAH_016502706	CUYAH_016502790	CUYAH_016502846
CUYAH_016502708	CUYAH_016502791	CUYAH_016502847
CUYAH_016502710	CUYAH_016502792	CUYAH_016502848
CUYAH_016502712	CUYAH_016502793	CUYAH_016502849
CUYAH_016502714	CUYAH_016502794	CUYAH_016502850
CUYAH_016502717	CUYAH_016502795	CUYAH_016502851
CUYAH_016502719	CUYAH_016502796	CUYAH_016502852
CUYAH_016502721	CUYAH_016502797	CUYAH_016502853
CUYAH_016502723	CUYAH_016502798	CUYAH_016502854
CUYAH_016502725	CUYAH_016502799	CUYAH_016502855
CUYAH_016502727	CUYAH_016502800	CUYAH_016502856
CUYAH_016502729	CUYAH_016502801	CUYAH_016502857
CUYAH_016502731	CUYAH_016502802	CUYAH_016502858
CUYAH_016502733	CUYAH_016502803	CUYAH_016502859
CUYAH_016502735	CUYAH_016502804	CUYAH_016502860
CUYAH_016502737	CUYAH_016502805	CUYAH_016502861

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_016502862	CUYAH_016502938	CUYAH_016503000
CUYAH_016502863	CUYAH_016502939	CUYAH_016503002
CUYAH_016502864	CUYAH_016502940	CUYAH_016503005
CUYAH_016502865	CUYAH_016502941	CUYAH_016503007
CUYAH_016502866	CUYAH_016502942	CUYAH_016503008
CUYAH_016502867	CUYAH_016502943	CUYAH_016503009
CUYAH_016502868	CUYAH_016502944	CUYAH_016503010
CUYAH_016502869	CUYAH_016502945	CUYAH_016503011
CUYAH_016502870	CUYAH_016502946	CUYAH_016503012
CUYAH_016502871	CUYAH_016502947	CUYAH_016503013
CUYAH_016502872	CUYAH_016502948	CUYAH_016503014
CUYAH_016502873	CUYAH_016502949	CUYAH_016503015
CUYAH_016502874	CUYAH_016502950	CUYAH_016503016
CUYAH_016502875	CUYAH_016502951	CUYAH_016503017
CUYAH_016502876	CUYAH_016502952	CUYAH_016503018
CUYAH_016502877	CUYAH_016502953	CUYAH_016503020
CUYAH_016502878	CUYAH_016502954	CUYAH_016503022
CUYAH_016502879	CUYAH_016502955	CUYAH_016503024
CUYAH_016502880	CUYAH_016502956	CUYAH_016503026
CUYAH_016502881	CUYAH_016502957	CUYAH_016503028
CUYAH_016502884	CUYAH_016502958	CUYAH_016503030
CUYAH_016502886	CUYAH_016502959	CUYAH_016503032
CUYAH_016502888	CUYAH_016502960	CUYAH_016503034
CUYAH_016502891	CUYAH_016502961	CUYAH_016503036
CUYAH_016502894	CUYAH_016502963	CUYAH_016503038
CUYAH_016502896	CUYAH_016502965	CUYAH_016503040
CUYAH_016502899	CUYAH_016502966	CUYAH_016503042
CUYAH_016502902	CUYAH_016502967	CUYAH_016503045
CUYAH_016502903	CUYAH_016502968	CUYAH_016503048
CUYAH_016502906	CUYAH_016502969	CUYAH_016503050
CUYAH_016502909	CUYAH_016502970	CUYAH_016503052
CUYAH_016502911	CUYAH_016502971	CUYAH_016503054
CUYAH_016502914	CUYAH_016502972	CUYAH_016503057
CUYAH_016502915	CUYAH_016502973	CUYAH_016503059
CUYAH_016502916	CUYAH_016502974	CUYAH_016503060
CUYAH_016502917	CUYAH_016502975	CUYAH_016503061
CUYAH_016502918	CUYAH_016502976	CUYAH_016503062
CUYAH_016502921	CUYAH_016502977	CUYAH_016503063
CUYAH_016502924	CUYAH_016502978	CUYAH_016503064
CUYAH_016502925	CUYAH_016502979	CUYAH_016503065
CUYAH_016502926	CUYAH_016502980	CUYAH_016503066
CUYAH_016502927	CUYAH_016502981	CUYAH_016503067
CUYAH_016502928	CUYAH_016502982	CUYAH_016503068
CUYAH_016502929	CUYAH_016502984	CUYAH_016503069
CUYAH_016502930	CUYAH_016502986	CUYAH_016503070
CUYAH_016502931	CUYAH_016502988	CUYAH_016503071
CUYAH_016502932	CUYAH_016502990	CUYAH_016503072
CUYAH_016502933	CUYAH_016502991	CUYAH_016503073
CUYAH_016502934	CUYAH_016502992	CUYAH_016503075
CUYAH_016502935	CUYAH_016502994	CUYAH_016503076
CUYAH_016502936	CUYAH_016502996	CUYAH_016503078
CUYAH_016502937	CUYAH_016502998	CUYAH_016503079

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_016503081	CUYAH_016503152	CUYAH_016503210
CUYAH_016503082	CUYAH_016503153	CUYAH_016503213
CUYAH_016503083	CUYAH_016503154	CUYAH_016503216
CUYAH_016503084	CUYAH_016503155	CUYAH_016503219
CUYAH_016503085	CUYAH_016503156	CUYAH_016503222
CUYAH_016503086	CUYAH_016503157	CUYAH_016503225
CUYAH_016503087	CUYAH_016503158	CUYAH_016503228
CUYAH_016503088	CUYAH_016503159	CUYAH_016503231
CUYAH_016503089	CUYAH_016503160	CUYAH_016503234
CUYAH_016503090	CUYAH_016503161	CUYAH_016503236
CUYAH_016503091	CUYAH_016503162	CUYAH_016503238
CUYAH_016503092	CUYAH_016503163	CUYAH_016503239
CUYAH_016503093	CUYAH_016503164	CUYAH_016503240
CUYAH_016503094	CUYAH_016503166	CUYAH_016503242
CUYAH_016503096	CUYAH_016503168	CUYAH_016503243
CUYAH_016503098	CUYAH_016503169	CUYAH_016503244
CUYAH_016503100	CUYAH_016503170	CUYAH_016503245
CUYAH_016503102	CUYAH_016503171	CUYAH_016503246
CUYAH_016503104	CUYAH_016503172	CUYAH_016503247
CUYAH_016503105	CUYAH_016503174	CUYAH_016503248
CUYAH_016503106	CUYAH_016503175	CUYAH_016503249
CUYAH_016503107	CUYAH_016503176	CUYAH_016503250
CUYAH_016503108	CUYAH_016503178	CUYAH_016503251
CUYAH_016503109	CUYAH_016503179	CUYAH_016503252
CUYAH_016503112	CUYAH_016503180	CUYAH_016503253
CUYAH_016503114	CUYAH_016503181	CUYAH_016503254
CUYAH_016503117	CUYAH_016503182	CUYAH_016503255
CUYAH_016503118	CUYAH_016503183	CUYAH_016503256
CUYAH_016503120	CUYAH_016503184	CUYAH_016503257
CUYAH_016503121	CUYAH_016503185	CUYAH_016503258
CUYAH_016503124	CUYAH_016503186	CUYAH_016503259
CUYAH_016503127	CUYAH_016503187	CUYAH_016503260
CUYAH_016503130	CUYAH_016503188	CUYAH_016503261
CUYAH_016503131	CUYAH_016503189	CUYAH_016503262
CUYAH_016503132	CUYAH_016503190	CUYAH_016503263
CUYAH_016503133	CUYAH_016503191	CUYAH_016503264
CUYAH_016503136	CUYAH_016503192	CUYAH_016503265
CUYAH_016503137	CUYAH_016503193	CUYAH_016503266
CUYAH_016503138	CUYAH_016503194	CUYAH_016503267
CUYAH_016503139	CUYAH_016503195	CUYAH_016503268
CUYAH_016503140	CUYAH_016503196	CUYAH_016503269
CUYAH_016503141	CUYAH_016503198	CUYAH_016503270
CUYAH_016503142	CUYAH_016503199	CUYAH_016503271
CUYAH_016503143	CUYAH_016503200	CUYAH_016503272
CUYAH_016503144	CUYAH_016503201	CUYAH_016503273
CUYAH_016503145	CUYAH_016503202	CUYAH_016503274
CUYAH_016503146	CUYAH_016503203	CUYAH_016503275
CUYAH_016503147	CUYAH_016503204	CUYAH_016503276
CUYAH_016503148	CUYAH_016503205	CUYAH_016503277
CUYAH_016503149	CUYAH_016503206	CUYAH_016503278
CUYAH_016503150	CUYAH_016503207	CUYAH_016503279
CUYAH_016503151	CUYAH_016503208	CUYAH_016503280

HIGHLY CONFIDENTIAL**Appendix 2**

CUYAH_016503281	CUYAH_016503370	OH-HIDTA_000158
CUYAH_016503282	CUYAH_016503371	OH-HIDTA_000168
CUYAH_016503283	CUYAH_016503373	OH-HIDTA_000193
CUYAH_016503284	CUYAH_016503374	OH-HIDTA_000216
CUYAH_016503285	CUYAH_016503375	OH-HIDTA_000221
CUYAH_016503286	CUYAH_016503376	OH-HIDTA_000225
CUYAH_016503289	CUYAH_016503377	OH-HIDTA_000228
CUYAH_016503292	CUYAH_016503378	OH-HIDTA_000232
CUYAH_016503295	CUYAH_016503379	OH-HIDTA_000251
CUYAH_016503297	CUYAH_016503380	OH-HIDTA_000266
CUYAH_016503300	CUYAH_016503381	OH-HIDTA_000287
CUYAH_016503301	CUYAH_016503382	OH-HIDTA_000289
CUYAH_016503302	CUYAH_016503383	OH-HIDTA_000291
CUYAH_016503303	CUYAH_016503384	OH-HIDTA_000429
CUYAH_016503305	CUYAH_016503385	OH-HIDTA_000511
CUYAH_016503308	CUYAH_016503386	OH-HIDTA_000526
CUYAH_016503310	CUYAH_016503387	OH-HIDTA_000534
CUYAH_016503312	CUYAH_016503388	OH-HIDTA_000565
CUYAH_016503315	CUYAH_016503390	OH-HIDTA_000616
CUYAH_016503317	CUYAH_016503392	OH-HIDTA_000656
CUYAH_016503319	CUYAH_016503394	OH-HIDTA_000701
CUYAH_016503321	CUYAH_016503396	OH-HIDTA_000751
CUYAH_016503323	CUYAH_016503398	OH-HIDTA_000805
CUYAH_016503325	CUYAH_016503400	OH-HIDTA_000851
CUYAH_016503326	Dept. of Public Safety 1721	OH-HIDTA_000892
CUYAH_016503327	Dept. of Public Safety 1748	OH-HIDTA_000937
CUYAH_016503328	Dept. of Public Safety 1863	OH-HIDTA_000989
CUYAH_016503329	Dept. of Public Safety 1956	OH-HIDTA_001047
CUYAH_016503331	Dept. of Public Safety 2141	OH-HIDTA_001048
CUYAH_016503332	Dept. of Public Safety 2233	OH-HIDTA_001049
CUYAH_016503333	Dept. of Public Safety 2325	OH-HIDTA_001050
CUYAH_016503334	Dept. of Public Safety 2436	OH-HIDTA_001051
CUYAH_016503335	Dept. of Public Safety 2535	OH-HIDTA_001052
CUYAH_016503336	Dept. of Public Safety 2623	OH-HIDTA_001053
CUYAH_016503337	Dept. of Public Safety 2821	OH-HIDTA_001054
CUYAH_016503338	EBI_OPIOID_MDL_00000	OH-HIDTA_001082
CUYAH_016503340	0001	OH-HIDTA_001112
CUYAH_016503342	IBH 1	OH-HIDTA_001144
CUYAH_016503343	IBH 1001	OH-HIDTA_001176
CUYAH_016503344	LERMS-VOL-001	OH-HIDTA_001209
CUYAH_016503346	LERMS-VOL-002	OH-HIDTA_001243
CUYAH_016503348	LERMS-VOL-003	OH-HIDTA_001276
CUYAH_016503351	ODPS-002-0000001	OH-HIDTA_001394
CUYAH_016503354	ODPS-002-0000002	OH-HIDTA_001403
CUYAH_016503357	ODPS-002-0000003	OH-HIDTA_001421
CUYAH_016503359	ODPS-002-0000004	OH-HIDTA_001436
CUYAH_016503361	ODPS-002-0000005	OH-HIDTA_001445
CUYAH_016503363	OH-HIDTA_000001	OH-HIDTA_001452
CUYAH_016503365	OH-HIDTA_000029	OH-HIDTA_001551
CUYAH_016503367	OH-HIDTA_000139	OH-HIDTA_001568
CUYAH_016503368	OH-HIDTA_000144	OH-HIDTA_001605
CUYAH_016503369	OH-HIDTA_000146	OH-HIDTA_001609

HIGHLY CONFIDENTIAL**Appendix 2**

OH-HIDTA_001640	OH-HIDTA_002613	OH-HIDTA_003276
OH-HIDTA_001670	OH-HIDTA_002621	OH-HIDTA_003280
OH-HIDTA_001671	OH-HIDTA_002635	OH-HIDTA_003284
OH-HIDTA_001700	OH-HIDTA_002647	OH-HIDTA_003297
OH-HIDTA_001732	OH-HIDTA_002648	OH-HIDTA_003301
OH-HIDTA_001768	OH-HIDTA_002665	OH-HIDTA_003302
OH-HIDTA_001777	OH-HIDTA_002684	OH-HIDTA_003304
OH-HIDTA_001778	OH-HIDTA_002686	OH-HIDTA_003314
OH-HIDTA_001788	OH-HIDTA_002691	OH-HIDTA_003318
OH-HIDTA_001820	OH-HIDTA_002692	OH-HIDTA_003340
OH-HIDTA_001821	OH-HIDTA_002697	OH-HIDTA_003344
OH-HIDTA_001828	OH-HIDTA_002712	OH-HIDTA_003345
OH-HIDTA_001861	OH-HIDTA_002726	OH-HIDTA_003347
OH-HIDTA_001873	OH-HIDTA_002740	OH-HIDTA_003358
OH-HIDTA_001894	OH-HIDTA_002741	OH-HIDTA_003369
OH-HIDTA_001924	OH-HIDTA_002753	OH-HIDTA_003407
OH-HIDTA_001931	OH-HIDTA_002776	OH-HIDTA_003455
OH-HIDTA_001945	OH-HIDTA_002793	OH-HIDTA_003474
OH-HIDTA_001981	OH-HIDTA_002810	OH-HIDTA_003501
OH-HIDTA_001995	OH-HIDTA_002811	OH-HIDTA_003558
OH-HIDTA_002000	OH-HIDTA_002812	OH-HIDTA_003617
OH-HIDTA_002034	OH-HIDTA_002839	OH-HIDTA_003656
OH-HIDTA_002067	OH-HIDTA_002840	OH-HIDTA_003672
OH-HIDTA_002103	OH-HIDTA_002860	OH-HIDTA_003673
OH-HIDTA_002107	OH-HIDTA_002861	OH-HIDTA_003674
OH-HIDTA_002114	OH-HIDTA_002863	OH-HIDTA_003675
OH-HIDTA_002147	OH-HIDTA_002909	OH-HIDTA_003677
OH-HIDTA_002148	OH-HIDTA_002961	OH-HIDTA_003680
OH-HIDTA_002149	OH-HIDTA_003019	OH-HIDTA_003689
OH-HIDTA_002150	OH-HIDTA_003085	OH-HIDTA_003692
OH-HIDTA_002151	OH-HIDTA_003157	OH-HIDTA_003703
OH-HIDTA_002152	OH-HIDTA_003246	OH-HIDTA_003707
OH-HIDTA_002153	OH-HIDTA_003247	OH-HIDTA_003728
OH-HIDTA_002154	OH-HIDTA_003248	OH-HIDTA_003737
OH-HIDTA_002167	OH-HIDTA_003249	OH-HIDTA_003747
OH-HIDTA_002234	OH-HIDTA_003250	OH-HIDTA_003760
OH-HIDTA_002235	OH-HIDTA_003251	OH-HIDTA_003782
OH-HIDTA_002236	OH-HIDTA_003252	OH-HIDTA_003794
OH-HIDTA_002281	OH-HIDTA_003253	OH-HIDTA_003806
OH-HIDTA_002282	OH-HIDTA_003254	OH-HIDTA_003816
OH-HIDTA_002425	OH-HIDTA_003255	OH-HIDTA_003831
OH-HIDTA_002426	OH-HIDTA_003256	OH-HIDTA_003832
OH-HIDTA_002430	OH-HIDTA_003257	OH-HIDTA_003833
OH-HIDTA_002432	OH-HIDTA_003258	OH-HIDTA_003842
OH-HIDTA_002435	OH-HIDTA_003259	OH-HIDTA_003851
OH-HIDTA_002437	OH-HIDTA_003260	OH-HIDTA_003860
OH-HIDTA_002531	OH-HIDTA_003261	OH-HIDTA_003862
OH-HIDTA_002537	OH-HIDTA_003262	OH-HIDTA_003863
OH-HIDTA_002579	OH-HIDTA_003263	OH-HIDTA_003961
OH-HIDTA_002582	OH-HIDTA_003267	OH-HIDTA_003994
OH-HIDTA_002600	OH-HIDTA_003271	OH-HIDTA_004006
OH-HIDTA_002603	OH-HIDTA_003273	OH-HIDTA_004007

HIGHLY CONFIDENTIAL**Appendix 2**

OH-HIDTA_004020	OH-HIDTA_004355	OhioMHAS_2804-
OH-HIDTA_004021	OH-HIDTA_004520	00000007
OH-HIDTA_004022	OH-HIDTA_004599	OhioMHAS_2804-
OH-HIDTA_004023	OH-HIDTA_004937	00000008
OH-HIDTA_004024	OH-HIDTA_004938	OhioMHAS_2804-
OH-HIDTA_004144	OH-HIDTA_004939	00000026
OH-HIDTA_004148	OH-HIDTA_005317	OhioMHAS_2804-
OH-HIDTA_004149	OH-HIDTA_005318	00000045
OH-HIDTA_004151	OH-HIDTA_005319	OhioMHAS_2804-
OH-HIDTA_004153	OH-HIDTA_005320	00000046
OH-HIDTA_004155	OH-HIDTA_005323	OhioMHAS_2804-
OH-HIDTA_004157	OH-HIDTA_005326	00000047
OH-HIDTA_004164	OH-HIDTA_005378	OhioMHAS_2804-
OH-HIDTA_004178	OH-HIDTA_005512	00000048
OH-HIDTA_004192	OH-HIDTA_005513	OhioMHAS_2804-
OH-HIDTA_004204	OH-HIDTA_005514	00000049
OH-HIDTA_004212	OH-HIDTA_005515	OhioMHAS_2804-
OH-HIDTA_004213	OH-HIDTA_005516	00000050
OH-HIDTA_004214	OH-HIDTA_005517	OhioMHAS_2804-
OH-HIDTA_004215	OH-HIDTA_005518	00000051
OH-HIDTA_004216	OH-HIDTA_005519	OhioMHAS_2804-
OH-HIDTA_004217	OH-HIDTA_005520	00000052
OH-HIDTA_004218	OH-HIDTA_005521	OhioMHAS_2804-
OH-HIDTA_004227	OH-HIDTA_005522	00000070
OH-HIDTA_004228	OH-HIDTA_005523	SUMMIT_000001199
OH-HIDTA_004246	OH-HIDTA_005524	SUMMIT_000001329
OH-HIDTA_004276	OH-HIDTA_005525	SUMMIT_000001461
OH-HIDTA_004278	OH-HIDTA_005526	SUMMIT_000001605
OH-HIDTA_004281	OH-HIDTA_005527	SUMMIT_000002310
OH-HIDTA_004282	OH-HIDTA_005556	SUMMIT_000004345
OH-HIDTA_004283	OhioDOPS_00001502	SUMMIT_000004346
OH-HIDTA_004305	OhioDOPS_00001711	SUMMIT_000004347
OH-HIDTA_004307	OhioDOPS_00001718	SUMMIT_000004348
OH-HIDTA_004310	OhioDOPS_00001721	SUMMIT_000004349
OH-HIDTA_004311	OhioDOPS_00001722	SUMMIT_000004350
OH-HIDTA_004314	OhioDOPS_00001723	SUMMIT_000004351
OH-HIDTA_004315	OhioDOPS_00001724	SUMMIT_000004352
OH-HIDTA_004319	OhioDOPS_00001725	SUMMIT_000004353
OH-HIDTA_004320	OhioDOPS_00001726	SUMMIT_000004509
OH-HIDTA_004322	OhioDOPS_00001727	SUMMIT_000005545
OH-HIDTA_004323	OhioMHAS_2804-	SUMMIT_000006502
OH-HIDTA_004327	00000001	SUMMIT_000009343
OH-HIDTA_004329	OhioMHAS_2804-	SUMMIT_000009487
OH-HIDTA_004335	00000002	SUMMIT_000009742
OH-HIDTA_004337	OhioMHAS_2804-	SUMMIT_000010324
OH-HIDTA_004338	00000003	SUMMIT_000010936
OH-HIDTA_004339	OhioMHAS_2804-	SUMMIT_000011824
OH-HIDTA_004346	00000004	SUMMIT_000012888
OH-HIDTA_004349	OhioMHAS_2804-	SUMMIT_000012894
OH-HIDTA_004350	00000005	SUMMIT_000012901
OH-HIDTA_004351	OhioMHAS_2804-	SUMMIT_000012907
OH-HIDTA_004353	00000006	SUMMIT_000012912

HIGHLY CONFIDENTIAL

Appendix 2

SUMMIT_000012941	SUMMIT_000023439	SUMMIT_000035776
SUMMIT_000012943	SUMMIT_000023910	SUMMIT_000036553
SUMMIT_000012948	SUMMIT_000023927	SUMMIT_000037079
SUMMIT_000012954	SUMMIT_000023928	SUMMIT_000037323
SUMMIT_000012978	SUMMIT_000024153	SUMMIT_000037336
SUMMIT_000013002	SUMMIT_000024194	SUMMIT_000037338
SUMMIT_000013022	SUMMIT_000024200	SUMMIT_000038070
SUMMIT_000013026	SUMMIT_000024207	SUMMIT_000038071
SUMMIT_000013055	SUMMIT_000024208	SUMMIT_000038167
SUMMIT_000013061	SUMMIT_000024214	SUMMIT_000038170
SUMMIT_000013075	SUMMIT_000024523	SUMMIT_000038171
SUMMIT_000013081	SUMMIT_000024580	SUMMIT_000038290
SUMMIT_000013087	SUMMIT_000024604	SUMMIT_000039786
SUMMIT_000013095	SUMMIT_000024608	SUMMIT_000042985
SUMMIT_000013115	SUMMIT_000024709	SUMMIT_000043050
SUMMIT_000013123	SUMMIT_000024711	SUMMIT_000043099
SUMMIT_000013128	SUMMIT_000024712	SUMMIT_000043100
SUMMIT_000013135	SUMMIT_000024713	SUMMIT_000043108
SUMMIT_000013142	SUMMIT_000024738	SUMMIT_000043109
SUMMIT_000013416	SUMMIT_000024741	SUMMIT_000045830
SUMMIT_000013440	SUMMIT_000024742	SUMMIT_000046309
SUMMIT_000013551	SUMMIT_000024792	SUMMIT_000046407
SUMMIT_000013575	SUMMIT_000024874	SUMMIT_000046427
SUMMIT_000013699	SUMMIT_000024888	SUMMIT_000046536
SUMMIT_000013877	SUMMIT_000024918	SUMMIT_000047351
SUMMIT_000014002	SUMMIT_000024926	SUMMIT_000047355
SUMMIT_000016568	SUMMIT_000024937	SUMMIT_000047365
SUMMIT_000016569	SUMMIT_000024938	SUMMIT_000047379
SUMMIT_000017479	SUMMIT_000024939	SUMMIT_000047408
SUMMIT_000017510	SUMMIT_000024978	SUMMIT_000047435
SUMMIT_000017545	SUMMIT_000026545	SUMMIT_000064691
SUMMIT_000017675	SUMMIT_000026924	SUMMIT_000064876
SUMMIT_000017769	SUMMIT_000027075	SUMMIT_000064877
SUMMIT_000017817	SUMMIT_000027082	SUMMIT_000064880
SUMMIT_000017867	SUMMIT_000027084	SUMMIT_000064884
SUMMIT_000017896	SUMMIT_000027115	SUMMIT_000064886
SUMMIT_000017903	SUMMIT_000028305	SUMMIT_000064887
SUMMIT_000018430	SUMMIT_000029791	SUMMIT_000064898
SUMMIT_000018440	SUMMIT_000029810	SUMMIT_000064899
SUMMIT_000018601	SUMMIT_000029815	SUMMIT_000064914
SUMMIT_000018676	SUMMIT_000029852	SUMMIT_000066757
SUMMIT_000018772	SUMMIT_000029863	SUMMIT_000066885
SUMMIT_000018935	SUMMIT_000029882	SUMMIT_000068493
SUMMIT_000018940	SUMMIT_000029888	SUMMIT_000068514
SUMMIT_000018949	SUMMIT_000029928	SUMMIT_000068518
SUMMIT_000019854	SUMMIT_000029933	SUMMIT_000068599
SUMMIT_000019855	SUMMIT_000029955	SUMMIT_000068674
SUMMIT_000019856	SUMMIT_000030013	SUMMIT_000068682
SUMMIT_000019857	SUMMIT_000030830	SUMMIT_000068837
SUMMIT_000019858	SUMMIT_000031143	SUMMIT_000068886
SUMMIT_000020013	SUMMIT_000031180	SUMMIT_000069011
SUMMIT_000023268	SUMMIT_000035729	SUMMIT_000069085

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_000069097	SUMMIT_000085397	SUMMIT_000099815
SUMMIT_000069105	SUMMIT_000085399	SUMMIT_000099822
SUMMIT_000069115	SUMMIT_000087427	SUMMIT_000099829
SUMMIT_000069120	SUMMIT_000087455	SUMMIT_000099840
SUMMIT_000070487	SUMMIT_000088323	SUMMIT_000099844
SUMMIT_000070607	SUMMIT_000089238	SUMMIT_000099873
SUMMIT_000071392	SUMMIT_000091114	SUMMIT_000099885
SUMMIT_000071434	SUMMIT_000091280	SUMMIT_000099892
SUMMIT_000071983	SUMMIT_000091295	SUMMIT_000099897
SUMMIT_000072131	SUMMIT_000092931	SUMMIT_000099909
SUMMIT_000072548	SUMMIT_000093048	SUMMIT_000099921
SUMMIT_000072615	SUMMIT_000093053	SUMMIT_000101744
SUMMIT_000072619	SUMMIT_000093066	SUMMIT_000102626
SUMMIT_000072996	SUMMIT_000093156	SUMMIT_000102684
SUMMIT_000073017	SUMMIT_000093186	SUMMIT_000102814
SUMMIT_000074111	SUMMIT_000093213	SUMMIT_000102817
SUMMIT_000075299	SUMMIT_000093285	SUMMIT_000102818
SUMMIT_000078467	SUMMIT_000093300	SUMMIT_000105113
SUMMIT_000078553	SUMMIT_000093393	SUMMIT_000105180
SUMMIT_000078616	SUMMIT_000093420	SUMMIT_000105844
SUMMIT_000078669	SUMMIT_000093612	SUMMIT_000105908
SUMMIT_000078828	SUMMIT_000093644	SUMMIT_000106406
SUMMIT_000078946	SUMMIT_000093690	SUMMIT_000106565
SUMMIT_000078962	SUMMIT_000093731	SUMMIT_000106579
SUMMIT_000079020	SUMMIT_000093736	SUMMIT_000106903
SUMMIT_000079068	SUMMIT_000093822	SUMMIT_000106925
SUMMIT_000080044	SUMMIT_000093938	SUMMIT_000107023
SUMMIT_000080224	SUMMIT_000093967	SUMMIT_000107039
SUMMIT_000080444	SUMMIT_000094007	SUMMIT_000107718
SUMMIT_000081235	SUMMIT_000094060	SUMMIT_000107723
SUMMIT_000081474	SUMMIT_000094099	SUMMIT_000107728
SUMMIT_000081498	SUMMIT_000094110	SUMMIT_000107738
SUMMIT_000082079	SUMMIT_000094387	SUMMIT_000107773
SUMMIT_000082468	SUMMIT_000094444	SUMMIT_000107779
SUMMIT_000082472	SUMMIT_000094572	SUMMIT_000107780
SUMMIT_000082525	SUMMIT_000094772	SUMMIT_000107789
SUMMIT_000082794	SUMMIT_000094922	SUMMIT_000107861
SUMMIT_000082864	SUMMIT_000094940	SUMMIT_000107911
SUMMIT_000082867	SUMMIT_000097398	SUMMIT_000108042
SUMMIT_000082876	SUMMIT_000097484	SUMMIT_000108190
SUMMIT_000082884	SUMMIT_000098346	SUMMIT_000108415
SUMMIT_000082893	SUMMIT_000098788	SUMMIT_000108494
SUMMIT_000082926	SUMMIT_000099179	SUMMIT_000108498
SUMMIT_000083498	SUMMIT_000099639	SUMMIT_000108502
SUMMIT_000083745	SUMMIT_000099656	SUMMIT_000108541
SUMMIT_000083749	SUMMIT_000099668	SUMMIT_000108630
SUMMIT_000083772	SUMMIT_000099686	SUMMIT_000108822
SUMMIT_000083810	SUMMIT_000099695	SUMMIT_000108869
SUMMIT_000083924	SUMMIT_000099707	SUMMIT_000108948
SUMMIT_000083938	SUMMIT_000099729	SUMMIT_000109078
SUMMIT_000085306	SUMMIT_000099760	SUMMIT_000109149
SUMMIT_000085395	SUMMIT_000099776	SUMMIT_000109167

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_000109168	SUMMIT_000115616	SUMMIT_000141788
SUMMIT_000109172	SUMMIT_000115686	SUMMIT_000142359
SUMMIT_000109173	SUMMIT_000116446	SUMMIT_000142678
SUMMIT_000109225	SUMMIT_000120700	SUMMIT_000145988
SUMMIT_000109400	SUMMIT_000121402	SUMMIT_000146222
SUMMIT_000109522	SUMMIT_000121523	SUMMIT_000147628
SUMMIT_000109525	SUMMIT_000121629	SUMMIT_000148289
SUMMIT_000110952	SUMMIT_000123443	SUMMIT_000148831
SUMMIT_000110954	SUMMIT_000124404	SUMMIT_000149468
SUMMIT_000110955	SUMMIT_000124994	SUMMIT_000150756
SUMMIT_000110960	SUMMIT_000125410	SUMMIT_000153241
SUMMIT_000110961	SUMMIT_000125523	SUMMIT_000153645
SUMMIT_000110962	SUMMIT_000125711	SUMMIT_000154088
SUMMIT_000110967	SUMMIT_000125994	SUMMIT_000154873
SUMMIT_000110971	SUMMIT_000126398	SUMMIT_000155007
SUMMIT_000110973	SUMMIT_000127066	SUMMIT_000155678
SUMMIT_000110978	SUMMIT_000127078	SUMMIT_000155968
SUMMIT_000110981	SUMMIT_000127130	SUMMIT_000156068
SUMMIT_000110984	SUMMIT_000127649	SUMMIT_000156244
SUMMIT_000110989	SUMMIT_000127706	SUMMIT_000165456
SUMMIT_000110992	SUMMIT_000127730	SUMMIT_000165548
SUMMIT_000110997	SUMMIT_000128101	SUMMIT_000170880
SUMMIT_000111000	SUMMIT_000129588	SUMMIT_000170888
SUMMIT_000111003	SUMMIT_000130007	SUMMIT_000171036
SUMMIT_000111006	SUMMIT_000130200	SUMMIT_000174075
SUMMIT_000111009	SUMMIT_000130250	SUMMIT_000174687
SUMMIT_000111013	SUMMIT_000130633	SUMMIT_000175635
SUMMIT_000111017	SUMMIT_000131233	SUMMIT_000177160
SUMMIT_000111021	SUMMIT_000131729	SUMMIT_000177600
SUMMIT_000111025	SUMMIT_000131746	SUMMIT_000178847
SUMMIT_000111283	SUMMIT_000132138	SUMMIT_000179351
SUMMIT_000111297	SUMMIT_000133134	SUMMIT_000179660
SUMMIT_000111533	SUMMIT_000133822	SUMMIT_000179751
SUMMIT_000111606	SUMMIT_000133901	SUMMIT_000180374
SUMMIT_000111607	SUMMIT_000134114	SUMMIT_000182167
SUMMIT_000111608	SUMMIT_000134144	SUMMIT_000182192
SUMMIT_000111609	SUMMIT_000135380	SUMMIT_000182523
SUMMIT_000111610	SUMMIT_000136726	SUMMIT_000182564
SUMMIT_000111611	SUMMIT_000136797	SUMMIT_000182566
SUMMIT_000111612	SUMMIT_000136860	SUMMIT_000189606
SUMMIT_000111613	SUMMIT_000136944	SUMMIT_000191985
SUMMIT_000111614	SUMMIT_000136952	SUMMIT_000198066
SUMMIT_000111615	SUMMIT_000137422	SUMMIT_000200554
SUMMIT_000112433	SUMMIT_000137497	SUMMIT_000200994
SUMMIT_000114181	SUMMIT_000138188	SUMMIT_000210357
SUMMIT_000114282	SUMMIT_000138300	SUMMIT_000224927
SUMMIT_000114284	SUMMIT_000139308	SUMMIT_000225023
SUMMIT_000114288	SUMMIT_000139588	SUMMIT_000225312
SUMMIT_000114692	SUMMIT_000140208	SUMMIT_000225490
SUMMIT_000115512	SUMMIT_000140216	SUMMIT_000225619
SUMMIT_000115582	SUMMIT_000141482	SUMMIT_000225909
SUMMIT_000115602	SUMMIT_000141671	SUMMIT_000226224

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_000226325	SUMMIT_000230301	SUMMIT_000241193
SUMMIT_000226414	SUMMIT_000230492	SUMMIT_000241431
SUMMIT_000226738	SUMMIT_000230558	SUMMIT_000241978
SUMMIT_000226827	SUMMIT_000230802	SUMMIT_000242096
SUMMIT_000226879	SUMMIT_000231181	SUMMIT_000242175
SUMMIT_000226930	SUMMIT_000231831	SUMMIT_000242383
SUMMIT_000226941	SUMMIT_000232594	SUMMIT_000242408
SUMMIT_000227071	SUMMIT_000232672	SUMMIT_000242624
SUMMIT_000227083	SUMMIT_000232878	SUMMIT_000243299
SUMMIT_000227117	SUMMIT_000232936	SUMMIT_000243639
SUMMIT_000227129	SUMMIT_000233076	SUMMIT_000244663
SUMMIT_000227535	SUMMIT_000233410	SUMMIT_000244823
SUMMIT_000227550	SUMMIT_000233455	SUMMIT_000245028
SUMMIT_000227630	SUMMIT_000234238	SUMMIT_000245149
SUMMIT_000227644	SUMMIT_000234807	SUMMIT_000245304
SUMMIT_000227788	SUMMIT_000235371	SUMMIT_000245416
SUMMIT_000227955	SUMMIT_000235429	SUMMIT_000245449
SUMMIT_000227967	SUMMIT_000235488	SUMMIT_000245470
SUMMIT_000228035	SUMMIT_000235559	SUMMIT_000245505
SUMMIT_000228047	SUMMIT_000235716	SUMMIT_000245517
SUMMIT_000228397	SUMMIT_000235745	SUMMIT_000245848
SUMMIT_000228407	SUMMIT_000235856	SUMMIT_000245987
SUMMIT_000228781	SUMMIT_000236371	SUMMIT_000246257
SUMMIT_000228788	SUMMIT_000236380	SUMMIT_000246331
SUMMIT_000228795	SUMMIT_000236429	SUMMIT_000246813
SUMMIT_000228802	SUMMIT_000236439	SUMMIT_000246836
SUMMIT_000228809	SUMMIT_000236605	SUMMIT_000246890
SUMMIT_000228816	SUMMIT_000236628	SUMMIT_000246925
SUMMIT_000228860	SUMMIT_000236729	SUMMIT_000247451
SUMMIT_000228867	SUMMIT_000236740	SUMMIT_000247483
SUMMIT_000228874	SUMMIT_000236827	SUMMIT_000247494
SUMMIT_000228885	SUMMIT_000236835	SUMMIT_000247511
SUMMIT_000228892	SUMMIT_000236843	SUMMIT_000247522
SUMMIT_000228909	SUMMIT_000236852	SUMMIT_000247550
SUMMIT_000228916	SUMMIT_000236922	SUMMIT_000247613
SUMMIT_000229043	SUMMIT_000236929	SUMMIT_000247624
SUMMIT_000229050	SUMMIT_000236936	SUMMIT_000247729
SUMMIT_000229057	SUMMIT_000237382	SUMMIT_000247746
SUMMIT_000229085	SUMMIT_000237708	SUMMIT_000247793
SUMMIT_000229092	SUMMIT_000237921	SUMMIT_000247847
SUMMIT_000229215	SUMMIT_000238400	SUMMIT_000247859
SUMMIT_000229222	SUMMIT_000238490	SUMMIT_000247871
SUMMIT_000229446	SUMMIT_000238753	SUMMIT_000248130
SUMMIT_000229603	SUMMIT_000238815	SUMMIT_000248141
SUMMIT_000229671	SUMMIT_000238854	SUMMIT_000248153
SUMMIT_000229681	SUMMIT_000239241	SUMMIT_000248234
SUMMIT_000229725	SUMMIT_000239252	SUMMIT_000248244
SUMMIT_000229964	SUMMIT_000239273	SUMMIT_000248281
SUMMIT_000229975	SUMMIT_000239304	SUMMIT_000249051
SUMMIT_000229994	SUMMIT_000239552	SUMMIT_000249750
SUMMIT_000230004	SUMMIT_000239753	SUMMIT_000249776
SUMMIT_000230127	SUMMIT_000240836	SUMMIT_000249805

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_000250130	SUMMIT_000256283	SUMMIT_000290139
SUMMIT_000250207	SUMMIT_000257855	SUMMIT_000290150
SUMMIT_000250278	SUMMIT_000257909	SUMMIT_000290184
SUMMIT_000250339	SUMMIT_000258259	SUMMIT_000290187
SUMMIT_000250607	SUMMIT_000260262	SUMMIT_000290191
SUMMIT_000250617	SUMMIT_000260283	SUMMIT_000290192
SUMMIT_000250685	SUMMIT_000260379	SUMMIT_000290194
SUMMIT_000250728	SUMMIT_000260654	SUMMIT_000290195
SUMMIT_000250807	SUMMIT_000262310	SUMMIT_000290199
SUMMIT_000250927	SUMMIT_000263175	SUMMIT_000290203
SUMMIT_000251021	SUMMIT_000263828	SUMMIT_000290207
SUMMIT_000251036	SUMMIT_000264282	SUMMIT_000290209
SUMMIT_000251290	SUMMIT_000264884	SUMMIT_000290213
SUMMIT_000251322	SUMMIT_000264954	SUMMIT_000290594
SUMMIT_000251669	SUMMIT_000264961	SUMMIT_000290595
SUMMIT_000251679	SUMMIT_000265175	SUMMIT_000291006
SUMMIT_000251693	SUMMIT_000265565	SUMMIT_000291012
SUMMIT_000251740	SUMMIT_000265567	SUMMIT_000291013
SUMMIT_000251810	SUMMIT_000266592	SUMMIT_000291536
SUMMIT_000251820	SUMMIT_000266619	SUMMIT_000291840
SUMMIT_000251888	SUMMIT_000267229	SUMMIT_000295155
SUMMIT_000251897	SUMMIT_000267240	SUMMIT_000296417
SUMMIT_000252021	SUMMIT_000267546	SUMMIT_000297329
SUMMIT_000252030	SUMMIT_000270582	SUMMIT_000298168
SUMMIT_000252049	SUMMIT_000275917	SUMMIT_000299225
SUMMIT_000252101	SUMMIT_000278634	SUMMIT_000300064
SUMMIT_000252566	SUMMIT_000278647	SUMMIT_000300361
SUMMIT_000252569	SUMMIT_000280217	SUMMIT_000300460
SUMMIT_000252959	SUMMIT_000280307	SUMMIT_000300465
SUMMIT_000253067	SUMMIT_000280381	SUMMIT_000300488
SUMMIT_000253077	SUMMIT_000281045	SUMMIT_000300575
SUMMIT_000253112	SUMMIT_000281173	SUMMIT_000300661
SUMMIT_000253139	SUMMIT_000281607	SUMMIT_000300924
SUMMIT_000253149	SUMMIT_000282124	SUMMIT_000301010
SUMMIT_000253165	SUMMIT_000282290	SUMMIT_000301416
SUMMIT_000253176	SUMMIT_000282444	SUMMIT_000301902
SUMMIT_000253228	SUMMIT_000283624	SUMMIT_000302140
SUMMIT_000253237	SUMMIT_000283815	SUMMIT_000302223
SUMMIT_000253264	SUMMIT_000284381	SUMMIT_000302894
SUMMIT_000253274	SUMMIT_000289300	SUMMIT_000304280
SUMMIT_000253446	SUMMIT_000289320	SUMMIT_000304467
SUMMIT_000253706	SUMMIT_000289330	SUMMIT_000304631
SUMMIT_000254063	SUMMIT_000289577	SUMMIT_000305091
SUMMIT_000254243	SUMMIT_000290130	SUMMIT_000309406
SUMMIT_000254264	SUMMIT_000290131	SUMMIT_000310232
SUMMIT_000254455	SUMMIT_000290132	SUMMIT_000310464
SUMMIT_000254579	SUMMIT_000290133	SUMMIT_000310572
SUMMIT_000254597	SUMMIT_000290134	SUMMIT_000310977
SUMMIT_000254721	SUMMIT_000290135	SUMMIT_000312981
SUMMIT_000255560	SUMMIT_000290136	SUMMIT_000313009
SUMMIT_000255667	SUMMIT_000290137	SUMMIT_000313191
SUMMIT_000255771	SUMMIT_000290138	SUMMIT_000315292

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_000315834	SUMMIT_000347078	SUMMIT_000655400
SUMMIT_000316630	SUMMIT_000347310	SUMMIT_000658765
SUMMIT_000317894	SUMMIT_000347651	SUMMIT_000669161
SUMMIT_000318308	SUMMIT_000348182	SUMMIT_000681374
SUMMIT_000318433	SUMMIT_000348212	SUMMIT_000821033
SUMMIT_000323600	SUMMIT_000348595	SUMMIT_000821099
SUMMIT_000326861	SUMMIT_000348597	SUMMIT_000822472
SUMMIT_000328512	SUMMIT_000348734	SUMMIT_000822474
SUMMIT_000329040	SUMMIT_000348984	SUMMIT_000822997
SUMMIT_000329152	SUMMIT_000349556	SUMMIT_000823024
SUMMIT_000330705	SUMMIT_000350034	SUMMIT_000823030
SUMMIT_000331226	SUMMIT_000350728	SUMMIT_000823890
SUMMIT_000331547	SUMMIT_000350794	SUMMIT_000824452
SUMMIT_000332147	SUMMIT_000350795	SUMMIT_000824977
SUMMIT_000332628	SUMMIT_000350796	SUMMIT_000825409
SUMMIT_000332783	SUMMIT_000350797	SUMMIT_000825800
SUMMIT_000332987	SUMMIT_000350798	SUMMIT_000826844
SUMMIT_000333231	SUMMIT_000350799	SUMMIT_000826846
SUMMIT_000334187	SUMMIT_000350800	SUMMIT_000826908
SUMMIT_000334527	SUMMIT_000350801	SUMMIT_000827185
SUMMIT_000335262	SUMMIT_000350802	SUMMIT_000827736
SUMMIT_000336177	SUMMIT_000352477	SUMMIT_000829819
SUMMIT_000337285	SUMMIT_000352749	SUMMIT_000830330
SUMMIT_000337601	SUMMIT_000352849	SUMMIT_000830451
SUMMIT_000337695	SUMMIT_000353647	SUMMIT_000830520
SUMMIT_000338057	SUMMIT_000353713	SUMMIT_000833594
SUMMIT_000338083	SUMMIT_000353783	SUMMIT_000834328
SUMMIT_000338455	SUMMIT_000354415	SUMMIT_000834858
SUMMIT_000339594	SUMMIT_000357372	SUMMIT_000834859
SUMMIT_000339716	SUMMIT_000357379	SUMMIT_000836784
SUMMIT_000340860	SUMMIT_000360249	SUMMIT_000839429
SUMMIT_000341277	SUMMIT_000360334	SUMMIT_000846049
SUMMIT_000341489	SUMMIT_000361931	SUMMIT_000846498
SUMMIT_000341940	SUMMIT_000363018	SUMMIT_000847021
SUMMIT_000341980	SUMMIT_000363364	SUMMIT_000847821
SUMMIT_000342004	SUMMIT_000363593	SUMMIT_000847997
SUMMIT_000342016	SUMMIT_000364025	SUMMIT_000848298
SUMMIT_000342025	SUMMIT_000366152	SUMMIT_000849868
SUMMIT_000342039	SUMMIT_000366162	SUMMIT_000849960
SUMMIT_000342040	SUMMIT_000366171	SUMMIT_000851354
SUMMIT_000342434	SUMMIT_000366178	SUMMIT_000851716
SUMMIT_000343702	SUMMIT_000399524	SUMMIT_000852105
SUMMIT_000343806	SUMMIT_000425653	SUMMIT_000852159
SUMMIT_000344090	SUMMIT_000439999	SUMMIT_000852325
SUMMIT_000344091	SUMMIT_000449717	SUMMIT_000852648
SUMMIT_000344930	SUMMIT_000474126	SUMMIT_000853144
SUMMIT_000346682	SUMMIT_000495892	SUMMIT_000853240
SUMMIT_000346735	SUMMIT_000549260	SUMMIT_000854576
SUMMIT_000346818	SUMMIT_000601670	SUMMIT_000854725
SUMMIT_000346874	SUMMIT_000624058	SUMMIT_000854779
SUMMIT_000346965	SUMMIT_000644462	SUMMIT_000855617
SUMMIT_000347053	SUMMIT_000646755	SUMMIT_000855800

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_000855943	SUMMIT_000921011	SUMMIT_000966554
SUMMIT_000856312	SUMMIT_000921094	SUMMIT_000966831
SUMMIT_000857752	SUMMIT_000923187	SUMMIT_000966833
SUMMIT_000858357	SUMMIT_000923490	SUMMIT_000967087
SUMMIT_000858454	SUMMIT_000923630	SUMMIT_000967356
SUMMIT_000858541	SUMMIT_000925412	SUMMIT_000967358
SUMMIT_000862734	SUMMIT_000925987	SUMMIT_000967396
SUMMIT_000875082	SUMMIT_000927442	SUMMIT_000967419
SUMMIT_000877333	SUMMIT_000928608	SUMMIT_000967748
SUMMIT_000877334	SUMMIT_000929153	SUMMIT_000967763
SUMMIT_000877335	SUMMIT_000930207	SUMMIT_000967778
SUMMIT_000877336	SUMMIT_000932885	SUMMIT_000967946
SUMMIT_000877337	SUMMIT_000933818	SUMMIT_000967948
SUMMIT_000877338	SUMMIT_000935074	SUMMIT_000968253
SUMMIT_000877340	SUMMIT_000937072	SUMMIT_000968255
SUMMIT_000877342	SUMMIT_000937869	SUMMIT_000968545
SUMMIT_000877546	SUMMIT_000938054	SUMMIT_000968547
SUMMIT_000877930	SUMMIT_000938959	SUMMIT_000968900
SUMMIT_000879665	SUMMIT_000939317	SUMMIT_000968902
SUMMIT_000879926	SUMMIT_000939443	SUMMIT_000968921
SUMMIT_000879963	SUMMIT_000939450	SUMMIT_000969184
SUMMIT_000880574	SUMMIT_000939461	SUMMIT_000969186
SUMMIT_000881179	SUMMIT_000940459	SUMMIT_000969449
SUMMIT_000883769	SUMMIT_000941621	SUMMIT_000969452
SUMMIT_000887060	SUMMIT_000942137	SUMMIT_000969517
SUMMIT_000888736	SUMMIT_000943050	SUMMIT_000969696
SUMMIT_000888738	SUMMIT_000943587	SUMMIT_000969700
SUMMIT_000888740	SUMMIT_000943854	SUMMIT_000969711
SUMMIT_000888742	SUMMIT_000944065	SUMMIT_000969943
SUMMIT_000888746	SUMMIT_000945464	SUMMIT_000969946
SUMMIT_000888748	SUMMIT_000945472	SUMMIT_000970191
SUMMIT_000890004	SUMMIT_000945570	SUMMIT_000970194
SUMMIT_000891322	SUMMIT_000945651	SUMMIT_000970447
SUMMIT_000894652	SUMMIT_000948130	SUMMIT_000970450
SUMMIT_000897737	SUMMIT_000949441	SUMMIT_000970685
SUMMIT_000899442	SUMMIT_000952287	SUMMIT_000970688
SUMMIT_000899605	SUMMIT_000955453	SUMMIT_000970938
SUMMIT_000900153	SUMMIT_000955597	SUMMIT_000970941
SUMMIT_000900444	SUMMIT_000955785	SUMMIT_000971194
SUMMIT_000900475	SUMMIT_000955864	SUMMIT_000971371
SUMMIT_000900764	SUMMIT_000955968	SUMMIT_000971374
SUMMIT_000904397	SUMMIT_000956565	SUMMIT_000971513
SUMMIT_000904475	SUMMIT_000960343	SUMMIT_000971516
SUMMIT_000909653	SUMMIT_000960681	SUMMIT_000971603
SUMMIT_000911266	SUMMIT_000962038	SUMMIT_000971606
SUMMIT_000912621	SUMMIT_000964140	SUMMIT_000971730
SUMMIT_000913071	SUMMIT_000965598	SUMMIT_000971732
SUMMIT_000913552	SUMMIT_000965600	SUMMIT_000971786
SUMMIT_000913624	SUMMIT_000965865	SUMMIT_000972451
SUMMIT_000913747	SUMMIT_000965923	SUMMIT_000972954
SUMMIT_000914126	SUMMIT_000965925	SUMMIT_000973958
SUMMIT_000916174	SUMMIT_000966552	SUMMIT_000974352

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_000974354	SUMMIT_000993623	SUMMIT_001018250
SUMMIT_000974356	SUMMIT_000993628	SUMMIT_001018739
SUMMIT_000974358	SUMMIT_000993633	SUMMIT_001018942
SUMMIT_000974825	SUMMIT_000994419	SUMMIT_001019008
SUMMIT_000974867	SUMMIT_000995032	SUMMIT_001019641
SUMMIT_000974881	SUMMIT_000995615	SUMMIT_001019715
SUMMIT_000975056	SUMMIT_000996193	SUMMIT_001019925
SUMMIT_000975213	SUMMIT_000996801	SUMMIT_001020694
SUMMIT_000975520	SUMMIT_000996857	SUMMIT_001024254
SUMMIT_000976157	SUMMIT_000996861	SUMMIT_001025155
SUMMIT_000976982	SUMMIT_000998724	SUMMIT_001025558
SUMMIT_000976983	SUMMIT_000999500	SUMMIT_001026339
SUMMIT_000976987	SUMMIT_001000102	SUMMIT_001026354
SUMMIT_000977381	SUMMIT_001000466	SUMMIT_001026896
SUMMIT_000979204	SUMMIT_001000530	SUMMIT_001026964
SUMMIT_000979354	SUMMIT_001000920	SUMMIT_001027097
SUMMIT_000980326	SUMMIT_001001343	SUMMIT_001027180
SUMMIT_000980328	SUMMIT_001001679	SUMMIT_001027354
SUMMIT_000981413	SUMMIT_001002218	SUMMIT_001027485
SUMMIT_000982118	SUMMIT_001003563	SUMMIT_001027495
SUMMIT_000982122	SUMMIT_001003677	SUMMIT_001028526
SUMMIT_000982362	SUMMIT_001003973	SUMMIT_001029172
SUMMIT_000982385	SUMMIT_001004127	SUMMIT_001029637
SUMMIT_000982396	SUMMIT_001004365	SUMMIT_001029753
SUMMIT_000982534	SUMMIT_001005485	SUMMIT_001031087
SUMMIT_000982575	SUMMIT_001006131	SUMMIT_001031112
SUMMIT_000983250	SUMMIT_001006260	SUMMIT_001031857
SUMMIT_000983785	SUMMIT_001006678	SUMMIT_001032194
SUMMIT_000983958	SUMMIT_001006679	SUMMIT_001033070
SUMMIT_000984288	SUMMIT_001007631	SUMMIT_001033322
SUMMIT_000984290	SUMMIT_001008073	SUMMIT_001033515
SUMMIT_000984292	SUMMIT_001009501	SUMMIT_001033774
SUMMIT_000984294	SUMMIT_001010349	SUMMIT_001033890
SUMMIT_000984302	SUMMIT_001010609	SUMMIT_001034689
SUMMIT_000984420	SUMMIT_001012245	SUMMIT_001034972
SUMMIT_000984421	SUMMIT_001012424	SUMMIT_001034981
SUMMIT_000985438	SUMMIT_001012727	SUMMIT_001035038
SUMMIT_000985781	SUMMIT_001013087	SUMMIT_001037410
SUMMIT_000985835	SUMMIT_001013126	SUMMIT_001038054
SUMMIT_000986350	SUMMIT_001013152	SUMMIT_001038152
SUMMIT_000986482	SUMMIT_001013217	SUMMIT_001038457
SUMMIT_000987673	SUMMIT_001013457	SUMMIT_001038474
SUMMIT_000987680	SUMMIT_001013771	SUMMIT_001038632
SUMMIT_000987687	SUMMIT_001014319	SUMMIT_001039507
SUMMIT_000989041	SUMMIT_001014383	SUMMIT_001040009
SUMMIT_000990064	SUMMIT_001015122	SUMMIT_001040634
SUMMIT_000990286	SUMMIT_001015129	SUMMIT_001041248
SUMMIT_000990377	SUMMIT_001015137	SUMMIT_001044161
SUMMIT_000990380	SUMMIT_001016148	SUMMIT_001045896
SUMMIT_000992441	SUMMIT_001017049	SUMMIT_001046510
SUMMIT_000992444	SUMMIT_001017216	SUMMIT_001046653
SUMMIT_000993534	SUMMIT_001017536	SUMMIT_001046924

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_001047169	SUMMIT_001069469	SUMMIT_001088860
SUMMIT_001048118	SUMMIT_001069738	SUMMIT_001089012
SUMMIT_001048676	SUMMIT_001069977	SUMMIT_001089093
SUMMIT_001049192	SUMMIT_001070009	SUMMIT_001091093
SUMMIT_001049597	SUMMIT_001070121	SUMMIT_001091240
SUMMIT_001050987	SUMMIT_001070167	SUMMIT_001093489
SUMMIT_001051166	SUMMIT_001070307	SUMMIT_001093513
SUMMIT_001051356	SUMMIT_001070376	SUMMIT_001094210
SUMMIT_001051384	SUMMIT_001070444	SUMMIT_001094432
SUMMIT_001051609	SUMMIT_001070461	SUMMIT_001094782
SUMMIT_001051910	SUMMIT_001070564	SUMMIT_001095016
SUMMIT_001052387	SUMMIT_001070750	SUMMIT_001095678
SUMMIT_001052983	SUMMIT_001075750	SUMMIT_001096316
SUMMIT_001053268	SUMMIT_001077030	SUMMIT_001096385
SUMMIT_001053412	SUMMIT_001077278	SUMMIT_001096388
SUMMIT_001053668	SUMMIT_001077825	SUMMIT_001096442
SUMMIT_001053897	SUMMIT_001078027	SUMMIT_001096899
SUMMIT_001054131	SUMMIT_001078115	SUMMIT_001097492
SUMMIT_001054420	SUMMIT_001078188	SUMMIT_001099909
SUMMIT_001054571	SUMMIT_001078244	SUMMIT_001101394
SUMMIT_001055339	SUMMIT_001078311	SUMMIT_001101591
SUMMIT_001055366	SUMMIT_001079468	SUMMIT_001102868
SUMMIT_001056544	SUMMIT_001079604	SUMMIT_001103655
SUMMIT_001056546	SUMMIT_001080904	SUMMIT_001103964
SUMMIT_001056717	SUMMIT_001081033	SUMMIT_001104408
SUMMIT_001056727	SUMMIT_001081090	SUMMIT_001105048
SUMMIT_001057072	SUMMIT_001081771	SUMMIT_001105507
SUMMIT_001057980	SUMMIT_001082348	SUMMIT_001105645
SUMMIT_001058025	SUMMIT_001083718	SUMMIT_001106026
SUMMIT_001058213	SUMMIT_001084697	SUMMIT_001106105
SUMMIT_001058785	SUMMIT_001084827	SUMMIT_001106244
SUMMIT_001058991	SUMMIT_001085635	SUMMIT_001106338
SUMMIT_001059097	SUMMIT_001085936	SUMMIT_001106821
SUMMIT_001060820	SUMMIT_001085972	SUMMIT_001107033
SUMMIT_001062034	SUMMIT_001086036	SUMMIT_001107347
SUMMIT_001062059	SUMMIT_001086094	SUMMIT_001107370
SUMMIT_001062230	SUMMIT_001086176	SUMMIT_001107664
SUMMIT_001062295	SUMMIT_001086314	SUMMIT_001107804
SUMMIT_001062813	SUMMIT_001086329	SUMMIT_001107987
SUMMIT_001062894	SUMMIT_001086341	SUMMIT_001107995
SUMMIT_001063260	SUMMIT_001086364	SUMMIT_001108084
SUMMIT_001063495	SUMMIT_001086382	SUMMIT_001108111
SUMMIT_001063786	SUMMIT_001086401	SUMMIT_001109876
SUMMIT_001064053	SUMMIT_001086447	SUMMIT_001109883
SUMMIT_001065442	SUMMIT_001086463	SUMMIT_001111350
SUMMIT_001066011	SUMMIT_001086478	SUMMIT_001111859
SUMMIT_001066735	SUMMIT_001086516	SUMMIT_001112158
SUMMIT_001066948	SUMMIT_001086531	SUMMIT_001112844
SUMMIT_001068210	SUMMIT_001086543	SUMMIT_001113299
SUMMIT_001068351	SUMMIT_001086565	SUMMIT_001114033
SUMMIT_001068365	SUMMIT_001087938	SUMMIT_001114119
SUMMIT_001068674	SUMMIT_001088325	SUMMIT_001114616

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_001115216	SUMMIT_001147387	SUMMIT_001157372
SUMMIT_001115581	SUMMIT_001147531	SUMMIT_001157560
SUMMIT_001116850	SUMMIT_001147558	SUMMIT_001158680
SUMMIT_001116880	SUMMIT_001147639	SUMMIT_001159119
SUMMIT_001117305	SUMMIT_001147720	SUMMIT_001159274
SUMMIT_001117431	SUMMIT_001147759	SUMMIT_001159275
SUMMIT_001118139	SUMMIT_001147785	SUMMIT_001159378
SUMMIT_001119005	SUMMIT_001147819	SUMMIT_001159856
SUMMIT_001119980	SUMMIT_001147849	SUMMIT_001159923
SUMMIT_001120735	SUMMIT_001147894	SUMMIT_001159968
SUMMIT_001121277	SUMMIT_001148035	SUMMIT_001160027
SUMMIT_001121330	SUMMIT_001148077	SUMMIT_001160042
SUMMIT_001121781	SUMMIT_001148111	SUMMIT_001160091
SUMMIT_001121787	SUMMIT_001148215	SUMMIT_001160173
SUMMIT_001122132	SUMMIT_001148324	SUMMIT_001160175
SUMMIT_001122140	SUMMIT_001148417	SUMMIT_001160326
SUMMIT_001122287	SUMMIT_001148486	SUMMIT_001160471
SUMMIT_001126903	SUMMIT_001148514	SUMMIT_001160472
SUMMIT_001126930	SUMMIT_001148567	SUMMIT_001160492
SUMMIT_001127296	SUMMIT_001148659	SUMMIT_001160495
SUMMIT_001127497	SUMMIT_001148783	SUMMIT_001161467
SUMMIT_001127676	SUMMIT_001148891	SUMMIT_001162116
SUMMIT_001128054	SUMMIT_001148929	SUMMIT_001162120
SUMMIT_001128057	SUMMIT_001149019	SUMMIT_001162421
SUMMIT_001128058	SUMMIT_001149124	SUMMIT_001163705
SUMMIT_001128061	SUMMIT_001149224	SUMMIT_001163737
SUMMIT_001128076	SUMMIT_001149254	SUMMIT_001163763
SUMMIT_001128115	SUMMIT_001149403	SUMMIT_001164116
SUMMIT_001128128	SUMMIT_001149430	SUMMIT_001165169
SUMMIT_001128137	SUMMIT_001149486	SUMMIT_001165805
SUMMIT_001128223	SUMMIT_001149594	SUMMIT_001167027
SUMMIT_001128224	SUMMIT_001149666	SUMMIT_001167913
SUMMIT_001128225	SUMMIT_001149740	SUMMIT_001168134
SUMMIT_001128381	SUMMIT_001149799	SUMMIT_001168555
SUMMIT_001128537	SUMMIT_001149827	SUMMIT_001168854
SUMMIT_001128576	SUMMIT_001149924	SUMMIT_001169016
SUMMIT_001128581	SUMMIT_001150069	SUMMIT_001169142
SUMMIT_001128609	SUMMIT_001150313	SUMMIT_001169617
SUMMIT_001128614	SUMMIT_001150403	SUMMIT_001169846
SUMMIT_001128642	SUMMIT_001150532	SUMMIT_001170054
SUMMIT_001128644	SUMMIT_001150580	SUMMIT_001170613
SUMMIT_001130208	SUMMIT_001152344	SUMMIT_001175541
SUMMIT_001130887	SUMMIT_001152520	SUMMIT_001176848
SUMMIT_001144409	SUMMIT_001153235	SUMMIT_001176954
SUMMIT_001146109	SUMMIT_001156888	SUMMIT_001176986
SUMMIT_001146613	SUMMIT_001156942	SUMMIT_001178984
SUMMIT_001146711	SUMMIT_001157015	SUMMIT_001179097
SUMMIT_001146951	SUMMIT_001157083	SUMMIT_001179580
SUMMIT_001146952	SUMMIT_001157107	SUMMIT_001179665
SUMMIT_001147066	SUMMIT_001157176	SUMMIT_001179959
SUMMIT_001147126	SUMMIT_001157214	SUMMIT_001180276
SUMMIT_001147219	SUMMIT_001157280	SUMMIT_001180588

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_001181423	SUMMIT_001202916	SUMMIT_001223012
SUMMIT_001181580	SUMMIT_001203096	SUMMIT_001223834
SUMMIT_001181626	SUMMIT_001203097	SUMMIT_001223897
SUMMIT_001181639	SUMMIT_001203099	SUMMIT_001224158
SUMMIT_001182435	SUMMIT_001203114	SUMMIT_001224256
SUMMIT_001182647	SUMMIT_001203365	SUMMIT_001225289
SUMMIT_001182667	SUMMIT_001203679	SUMMIT_001226349
SUMMIT_001183324	SUMMIT_001204110	SUMMIT_001227083
SUMMIT_001183380	SUMMIT_001204117	SUMMIT_001227236
SUMMIT_001183428	SUMMIT_001204572	SUMMIT_001227661
SUMMIT_001183967	SUMMIT_001204584	SUMMIT_001227669
SUMMIT_001184354	SUMMIT_001204787	SUMMIT_001227745
SUMMIT_001184359	SUMMIT_001205000	SUMMIT_001227961
SUMMIT_001184360	SUMMIT_001205001	SUMMIT_001227972
SUMMIT_001184361	SUMMIT_001205002	SUMMIT_001227991
SUMMIT_001184362	SUMMIT_001205003	SUMMIT_001228573
SUMMIT_001184368	SUMMIT_001205004	SUMMIT_001229068
SUMMIT_001185204	SUMMIT_001206173	SUMMIT_001229898
SUMMIT_001185288	SUMMIT_001206181	SUMMIT_001229958
SUMMIT_001185509	SUMMIT_001207161	SUMMIT_001230044
SUMMIT_001185607	SUMMIT_001207593	SUMMIT_001230105
SUMMIT_001185705	SUMMIT_001207884	SUMMIT_001233235
SUMMIT_001185812	SUMMIT_001208103	SUMMIT_001234581
SUMMIT_001185938	SUMMIT_001208366	SUMMIT_001234834
SUMMIT_001186159	SUMMIT_001210335	SUMMIT_001235110
SUMMIT_001186447	SUMMIT_001210885	SUMMIT_001235909
SUMMIT_001187459	SUMMIT_001211900	SUMMIT_001236377
SUMMIT_001187560	SUMMIT_001214017	SUMMIT_001238038
SUMMIT_001187667	SUMMIT_001214890	SUMMIT_001240389
SUMMIT_001187958	SUMMIT_001215142	SUMMIT_001240444
SUMMIT_001188014	SUMMIT_001216140	SUMMIT_001240889
SUMMIT_001188590	SUMMIT_001216180	SUMMIT_001241646
SUMMIT_001190150	SUMMIT_001217143	SUMMIT_001241669
SUMMIT_001190232	SUMMIT_001217657	SUMMIT_001241681
SUMMIT_001190337	SUMMIT_001217954	SUMMIT_001241952
SUMMIT_001190645	SUMMIT_001218371	SUMMIT_001242055
SUMMIT_001191962	SUMMIT_001218406	SUMMIT_001242753
SUMMIT_001194136	SUMMIT_001218880	SUMMIT_001243067
SUMMIT_001194225	SUMMIT_001219823	SUMMIT_001243450
SUMMIT_001194844	SUMMIT_001220191	SUMMIT_001243745
SUMMIT_001195181	SUMMIT_001220353	SUMMIT_001243790
SUMMIT_001195328	SUMMIT_001220544	SUMMIT_001244669
SUMMIT_001195371	SUMMIT_001220569	SUMMIT_001245141
SUMMIT_001195486	SUMMIT_001220805	SUMMIT_001245209
SUMMIT_001195509	SUMMIT_001220895	SUMMIT_001245246
SUMMIT_001195739	SUMMIT_001220942	SUMMIT_001245375
SUMMIT_001199068	SUMMIT_001220954	SUMMIT_001245679
SUMMIT_001202789	SUMMIT_001221018	SUMMIT_001245780
SUMMIT_001202790	SUMMIT_001221518	SUMMIT_001245826
SUMMIT_001202791	SUMMIT_001221922	SUMMIT_001245859
SUMMIT_001202908	SUMMIT_001221948	SUMMIT_001245943
SUMMIT_001202909	SUMMIT_001222969	SUMMIT_001246058

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_001246444	SUMMIT_001259187	SUMMIT_001296788
SUMMIT_001247156	SUMMIT_001259225	SUMMIT_001297382
SUMMIT_001247454	SUMMIT_001259464	SUMMIT_001304839
SUMMIT_001247481	SUMMIT_001259673	SUMMIT_001305260
SUMMIT_001247502	SUMMIT_001259975	SUMMIT_001305302
SUMMIT_001247639	SUMMIT_001261960	SUMMIT_001305354
SUMMIT_001247661	SUMMIT_001263020	SUMMIT_001306428
SUMMIT_001247873	SUMMIT_001263408	SUMMIT_001307236
SUMMIT_001248049	SUMMIT_001263612	SUMMIT_001307355
SUMMIT_001248245	SUMMIT_001264123	SUMMIT_001307581
SUMMIT_001248444	SUMMIT_001267884	SUMMIT_001308651
SUMMIT_001248874	SUMMIT_001267890	SUMMIT_001308769
SUMMIT_001249111	SUMMIT_001267896	SUMMIT_001308898
SUMMIT_001249395	SUMMIT_001267901	SUMMIT_001309234
SUMMIT_001249710	SUMMIT_001268686	SUMMIT_001309456
SUMMIT_001249737	SUMMIT_001268692	SUMMIT_001309562
SUMMIT_001249818	SUMMIT_001270020	SUMMIT_001309588
SUMMIT_001250119	SUMMIT_001270106	SUMMIT_001309978
SUMMIT_001250271	SUMMIT_001270196	SUMMIT_001310891
SUMMIT_001250364	SUMMIT_001272626	SUMMIT_001311248
SUMMIT_001251647	SUMMIT_001272882	SUMMIT_001311462
SUMMIT_001251710	SUMMIT_001273519	SUMMIT_001311470
SUMMIT_001251785	SUMMIT_001274273	SUMMIT_001313259
SUMMIT_001251893	SUMMIT_001274485	SUMMIT_001313324
SUMMIT_001251981	SUMMIT_001275334	SUMMIT_001313448
SUMMIT_001252032	SUMMIT_001277241	SUMMIT_001313456
SUMMIT_001252072	SUMMIT_001277795	SUMMIT_001313477
SUMMIT_001252081	SUMMIT_001278605	SUMMIT_001313492
SUMMIT_001252385	SUMMIT_001280207	SUMMIT_001313507
SUMMIT_001252576	SUMMIT_001280276	SUMMIT_001314182
SUMMIT_001252933	SUMMIT_001281101	SUMMIT_001314245
SUMMIT_001253125	SUMMIT_001281280	SUMMIT_001314914
SUMMIT_001253908	SUMMIT_001281282	SUMMIT_001315156
SUMMIT_001254033	SUMMIT_001281293	SUMMIT_001316689
SUMMIT_001254122	SUMMIT_001281311	SUMMIT_001317289
SUMMIT_001254637	SUMMIT_001281367	SUMMIT_001318233
SUMMIT_001254797	SUMMIT_001281437	SUMMIT_001318752
SUMMIT_001254904	SUMMIT_001281439	SUMMIT_001319820
SUMMIT_001255032	SUMMIT_001281522	SUMMIT_001320114
SUMMIT_001255065	SUMMIT_001281971	SUMMIT_001320394
SUMMIT_001255080	SUMMIT_001282233	SUMMIT_001321121
SUMMIT_001255604	SUMMIT_001282875	SUMMIT_001321557
SUMMIT_001255910	SUMMIT_001283000	SUMMIT_001321949
SUMMIT_001256258	SUMMIT_001287291	SUMMIT_001322638
SUMMIT_001256325	SUMMIT_001291998	SUMMIT_001323377
SUMMIT_001256382	SUMMIT_001292264	SUMMIT_001323880
SUMMIT_001257230	SUMMIT_001293078	SUMMIT_001324005
SUMMIT_001257246	SUMMIT_001293282	SUMMIT_001324242
SUMMIT_001257372	SUMMIT_001293527	SUMMIT_001324403
SUMMIT_001257701	SUMMIT_001293694	SUMMIT_001324821
SUMMIT_001258275	SUMMIT_001294468	SUMMIT_001324847
SUMMIT_001258934	SUMMIT_001296521	SUMMIT_001325039

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_001326414	SUMMIT_001364428	SUMMIT_001390902
SUMMIT_001326830	SUMMIT_001367149	SUMMIT_001390941
SUMMIT_001328088	SUMMIT_001368911	SUMMIT_001391006
SUMMIT_001330395	SUMMIT_001370509	SUMMIT_001391015
SUMMIT_001330752	SUMMIT_001371129	SUMMIT_001391021
SUMMIT_001330757	SUMMIT_001373503	SUMMIT_001391843
SUMMIT_001331312	SUMMIT_001373883	SUMMIT_001391886
SUMMIT_001331475	SUMMIT_001373927	SUMMIT_001391887
SUMMIT_001331562	SUMMIT_001375166	SUMMIT_001392177
SUMMIT_001331825	SUMMIT_001375221	SUMMIT_001392556
SUMMIT_001331836	SUMMIT_001375959	SUMMIT_001392973
SUMMIT_001331898	SUMMIT_001376377	SUMMIT_001396003
SUMMIT_001333637	SUMMIT_001376443	SUMMIT_001396019
SUMMIT_001334208	SUMMIT_001376520	SUMMIT_001396028
SUMMIT_001334243	SUMMIT_001377089	SUMMIT_001396062
SUMMIT_001334290	SUMMIT_001377199	SUMMIT_001396071
SUMMIT_001336894	SUMMIT_001377325	SUMMIT_001396081
SUMMIT_001337375	SUMMIT_001377363	SUMMIT_001396121
SUMMIT_001337404	SUMMIT_001377464	SUMMIT_001396265
SUMMIT_001338186	SUMMIT_001377714	SUMMIT_001397134
SUMMIT_001338559	SUMMIT_001377786	SUMMIT_001398405
SUMMIT_001338697	SUMMIT_001377804	SUMMIT_001398624
SUMMIT_001342682	SUMMIT_001379095	SUMMIT_001398705
SUMMIT_001343981	SUMMIT_001379988	SUMMIT_001399030
SUMMIT_001344276	SUMMIT_001381191	SUMMIT_001399213
SUMMIT_001346350	SUMMIT_001382018	SUMMIT_001399477
SUMMIT_001350128	SUMMIT_001382080	SUMMIT_001402082
SUMMIT_001350129	SUMMIT_001382134	SUMMIT_001402789
SUMMIT_001350284	SUMMIT_001382555	SUMMIT_001404421
SUMMIT_001350369	SUMMIT_001382630	SUMMIT_001405307
SUMMIT_001351096	SUMMIT_001383149	SUMMIT_001405445
SUMMIT_001351580	SUMMIT_001383358	SUMMIT_001407120
SUMMIT_001351594	SUMMIT_001384150	SUMMIT_001411691
SUMMIT_001351654	SUMMIT_001384652	SUMMIT_001411709
SUMMIT_001352681	SUMMIT_001385229	SUMMIT_001412153
SUMMIT_001352795	SUMMIT_001385873	SUMMIT_001412970
SUMMIT_001353084	SUMMIT_001387059	SUMMIT_001413678
SUMMIT_001353181	SUMMIT_001387097	SUMMIT_001413719
SUMMIT_001353807	SUMMIT_001387169	SUMMIT_001413947
SUMMIT_001354066	SUMMIT_001387186	SUMMIT_001414097
SUMMIT_001354960	SUMMIT_001387262	SUMMIT_001414223
SUMMIT_001355035	SUMMIT_001387372	SUMMIT_001414362
SUMMIT_001355749	SUMMIT_001387697	SUMMIT_001416799
SUMMIT_001356519	SUMMIT_001388500	SUMMIT_001417881
SUMMIT_001357268	SUMMIT_001388826	SUMMIT_001420105
SUMMIT_001357748	SUMMIT_001389166	SUMMIT_001420279
SUMMIT_001359293	SUMMIT_001389371	SUMMIT_001420532
SUMMIT_001359504	SUMMIT_001389524	SUMMIT_001421870
SUMMIT_001359713	SUMMIT_001390205	SUMMIT_001422812
SUMMIT_001362434	SUMMIT_001390307	SUMMIT_001423443
SUMMIT_001363287	SUMMIT_001390604	SUMMIT_001423752
SUMMIT_001364341	SUMMIT_001390854	SUMMIT_001423802

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_001424678	SUMMIT_001517368	SUMMIT_001517909
SUMMIT_001426187	SUMMIT_001517376	SUMMIT_001517910
SUMMIT_001428489	SUMMIT_001517384	SUMMIT_001517911
SUMMIT_001430696	SUMMIT_001517695	SUMMIT_001517912
SUMMIT_001430837	SUMMIT_001517698	SUMMIT_001517913
SUMMIT_001431075	SUMMIT_001517702	SUMMIT_001517914
SUMMIT_001432084	SUMMIT_001517705	SUMMIT_001517915
SUMMIT_001434782	SUMMIT_001517707	SUMMIT_001517916
SUMMIT_001443862	SUMMIT_001517710	SUMMIT_001517917
SUMMIT_001445488	SUMMIT_001517713	SUMMIT_001517918
SUMMIT_001446376	SUMMIT_001517716	SUMMIT_001517919
SUMMIT_001447361	SUMMIT_001517720	SUMMIT_001517920
SUMMIT_001447373	SUMMIT_001517723	SUMMIT_001517922
SUMMIT_001447377	SUMMIT_001517729	SUMMIT_001517926
SUMMIT_001447382	SUMMIT_001517735	SUMMIT_001517930
SUMMIT_001448736	SUMMIT_001517738	SUMMIT_001517932
SUMMIT_001448872	SUMMIT_001517742	SUMMIT_001517942
SUMMIT_001450550	SUMMIT_001517748	SUMMIT_001517952
SUMMIT_001450551	SUMMIT_001517756	SUMMIT_001517956
SUMMIT_001451059	SUMMIT_001517760	SUMMIT_001517967
SUMMIT_001451487	SUMMIT_001517770	SUMMIT_001517968
SUMMIT_001451581	SUMMIT_001517774	SUMMIT_001517975
SUMMIT_001460424	SUMMIT_001517778	SUMMIT_001517980
SUMMIT_001462721	SUMMIT_001517782	SUMMIT_001517981
SUMMIT_001462722	SUMMIT_001517784	SUMMIT_001517985
SUMMIT_001462723	SUMMIT_001517788	SUMMIT_001517989
SUMMIT_001462724	SUMMIT_001517790	SUMMIT_001517992
SUMMIT_001462725	SUMMIT_001517792	SUMMIT_001518004
SUMMIT_001462726	SUMMIT_001517795	SUMMIT_001518005
SUMMIT_001462727	SUMMIT_001517799	SUMMIT_001518007
SUMMIT_001462728	SUMMIT_001517801	SUMMIT_001518017
SUMMIT_001462729	SUMMIT_001517803	SUMMIT_001518018
SUMMIT_001462730	SUMMIT_001517809	SUMMIT_001518025
SUMMIT_001462731	SUMMIT_001517811	SUMMIT_001518027
SUMMIT_001462732	SUMMIT_001517816	SUMMIT_001518029
SUMMIT_001462733	SUMMIT_001517819	SUMMIT_001518032
SUMMIT_001462831	SUMMIT_001517844	SUMMIT_001518034
SUMMIT_001462832	SUMMIT_001517847	SUMMIT_001518038
SUMMIT_001462833	SUMMIT_001517852	SUMMIT_001518062
SUMMIT_001462926	SUMMIT_001517857	SUMMIT_001518063
SUMMIT_001463636	SUMMIT_001517861	SUMMIT_001518070
SUMMIT_001472861	SUMMIT_001517865	SUMMIT_001518074
SUMMIT_001473052	SUMMIT_001517866	SUMMIT_001518077
SUMMIT_001473416	SUMMIT_001517872	SUMMIT_001518080
SUMMIT_001505077	SUMMIT_001517874	SUMMIT_001518081
SUMMIT_001505957	SUMMIT_001517878	SUMMIT_001518107
SUMMIT_001505981	SUMMIT_001517882	SUMMIT_001518109
SUMMIT_001506108	SUMMIT_001517884	SUMMIT_001518111
SUMMIT_001506146	SUMMIT_001517888	SUMMIT_001518118
SUMMIT_001506554	SUMMIT_001517890	SUMMIT_001518122
SUMMIT_001517361	SUMMIT_001517898	SUMMIT_001518126
SUMMIT_001517366	SUMMIT_001517901	SUMMIT_001518128

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_001518132	SUMMIT_001518403	SUMMIT_001518583
SUMMIT_001518135	SUMMIT_001518406	SUMMIT_001518594
SUMMIT_001518137	SUMMIT_001518408	SUMMIT_001518605
SUMMIT_001518139	SUMMIT_001518409	SUMMIT_001518609
SUMMIT_001518144	SUMMIT_001518410	SUMMIT_001518613
SUMMIT_001518145	SUMMIT_001518412	SUMMIT_001518615
SUMMIT_001518147	SUMMIT_001518414	SUMMIT_001518616
SUMMIT_001518149	SUMMIT_001518421	SUMMIT_001518623
SUMMIT_001518154	SUMMIT_001518423	SUMMIT_001518625
SUMMIT_001518155	SUMMIT_001518425	SUMMIT_001518634
SUMMIT_001518156	SUMMIT_001518427	SUMMIT_001518636
SUMMIT_001518160	SUMMIT_001518431	SUMMIT_001518638
SUMMIT_001518161	SUMMIT_001518433	SUMMIT_001518642
SUMMIT_001518162	SUMMIT_001518440	SUMMIT_001518645
SUMMIT_001518164	SUMMIT_001518444	SUMMIT_001518647
SUMMIT_001518174	SUMMIT_001518446	SUMMIT_001518668
SUMMIT_001518183	SUMMIT_001518452	SUMMIT_001518671
SUMMIT_001518194	SUMMIT_001518453	SUMMIT_001518683
SUMMIT_001518196	SUMMIT_001518456	SUMMIT_001518687
SUMMIT_001518204	SUMMIT_001518461	SUMMIT_001518689
SUMMIT_001518206	SUMMIT_001518466	SUMMIT_001518700
SUMMIT_001518210	SUMMIT_001518471	SUMMIT_001518701
SUMMIT_001518212	SUMMIT_001518473	SUMMIT_001518704
SUMMIT_001518214	SUMMIT_001518477	SUMMIT_001518705
SUMMIT_001518218	SUMMIT_001518479	SUMMIT_001518726
SUMMIT_001518222	SUMMIT_001518480	SUMMIT_001518730
SUMMIT_001518226	SUMMIT_001518484	SUMMIT_001518752
SUMMIT_001518227	SUMMIT_001518488	SUMMIT_001518755
SUMMIT_001518229	SUMMIT_001518491	SUMMIT_001518758
SUMMIT_001518252	SUMMIT_001518492	SUMMIT_001518760
SUMMIT_001518256	SUMMIT_001518494	SUMMIT_001518762
SUMMIT_001518270	SUMMIT_001518496	SUMMIT_001518763
SUMMIT_001518278	SUMMIT_001518500	SUMMIT_001518767
SUMMIT_001518282	SUMMIT_001518501	SUMMIT_001518772
SUMMIT_001518286	SUMMIT_001518505	SUMMIT_001518789
SUMMIT_001518297	SUMMIT_001518507	SUMMIT_001518791
SUMMIT_001518299	SUMMIT_001518508	SUMMIT_001518793
SUMMIT_001518333	SUMMIT_001518510	SUMMIT_001518795
SUMMIT_001518334	SUMMIT_001518516	SUMMIT_001518798
SUMMIT_001518337	SUMMIT_001518518	SUMMIT_001518821
SUMMIT_001518339	SUMMIT_001518535	SUMMIT_001518823
SUMMIT_001518340	SUMMIT_001518536	SUMMIT_001518833
SUMMIT_001518343	SUMMIT_001518548	SUMMIT_001518835
SUMMIT_001518347	SUMMIT_001518549	SUMMIT_001518839
SUMMIT_001518349	SUMMIT_001518552	SUMMIT_001518842
SUMMIT_001518350	SUMMIT_001518553	SUMMIT_001518844
SUMMIT_001518353	SUMMIT_001518556	SUMMIT_001518847
SUMMIT_001518386	SUMMIT_001518559	SUMMIT_001518848
SUMMIT_001518387	SUMMIT_001518562	SUMMIT_001518851
SUMMIT_001518395	SUMMIT_001518564	SUMMIT_001518858
SUMMIT_001518396	SUMMIT_001518577	SUMMIT_001518870
SUMMIT_001518399	SUMMIT_001518579	SUMMIT_001518873

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_001518874	SUMMIT_001519062	SUMMIT_001519274
SUMMIT_001518878	SUMMIT_001519071	SUMMIT_001519277
SUMMIT_001518882	SUMMIT_001519075	SUMMIT_001519278
SUMMIT_001518887	SUMMIT_001519076	SUMMIT_001519284
SUMMIT_001518891	SUMMIT_001519077	SUMMIT_001519285
SUMMIT_001518892	SUMMIT_001519078	SUMMIT_001519288
SUMMIT_001518895	SUMMIT_001519079	SUMMIT_001519292
SUMMIT_001518896	SUMMIT_001519081	SUMMIT_001519294
SUMMIT_001518899	SUMMIT_001519085	SUMMIT_001519298
SUMMIT_001518903	SUMMIT_001519086	SUMMIT_001519302
SUMMIT_001518907	SUMMIT_001519096	SUMMIT_001519304
SUMMIT_001518908	SUMMIT_001519099	SUMMIT_001519309
SUMMIT_001518909	SUMMIT_001519103	SUMMIT_001519313
SUMMIT_001518912	SUMMIT_001519104	SUMMIT_001519343
SUMMIT_001518915	SUMMIT_001519106	SUMMIT_001519349
SUMMIT_001518917	SUMMIT_001519108	SUMMIT_001519352
SUMMIT_001518928	SUMMIT_001519118	SUMMIT_001519354
SUMMIT_001518930	SUMMIT_001519122	SUMMIT_001519363
SUMMIT_001518932	SUMMIT_001519126	SUMMIT_001519366
SUMMIT_001518936	SUMMIT_001519131	SUMMIT_001519368
SUMMIT_001518938	SUMMIT_001519133	SUMMIT_001519371
SUMMIT_001518939	SUMMIT_001519144	SUMMIT_001519377
SUMMIT_001518940	SUMMIT_001519150	SUMMIT_001519378
SUMMIT_001518944	SUMMIT_001519151	SUMMIT_001519381
SUMMIT_001518948	SUMMIT_001519153	SUMMIT_001519383
SUMMIT_001518949	SUMMIT_001519159	SUMMIT_001519387
SUMMIT_001518953	SUMMIT_001519160	SUMMIT_001519389
SUMMIT_001518960	SUMMIT_001519162	SUMMIT_001519390
SUMMIT_001518965	SUMMIT_001519164	SUMMIT_001519399
SUMMIT_001518966	SUMMIT_001519168	SUMMIT_001519400
SUMMIT_001518970	SUMMIT_001519169	SUMMIT_001519402
SUMMIT_001518974	SUMMIT_001519173	SUMMIT_001519403
SUMMIT_001518976	SUMMIT_001519174	SUMMIT_001519404
SUMMIT_001518979	SUMMIT_001519176	SUMMIT_001519418
SUMMIT_001518987	SUMMIT_001519178	SUMMIT_001519426
SUMMIT_001518994	SUMMIT_001519180	SUMMIT_001519427
SUMMIT_001518996	SUMMIT_001519186	SUMMIT_001519431
SUMMIT_001519012	SUMMIT_001519190	SUMMIT_001519437
SUMMIT_001519017	SUMMIT_001519194	SUMMIT_001519444
SUMMIT_001519018	SUMMIT_001519201	SUMMIT_001519454
SUMMIT_001519019	SUMMIT_001519206	SUMMIT_001519461
SUMMIT_001519024	SUMMIT_001519208	SUMMIT_001519462
SUMMIT_001519025	SUMMIT_001519218	SUMMIT_001519469
SUMMIT_001519035	SUMMIT_001519236	SUMMIT_001519475
SUMMIT_001519038	SUMMIT_001519239	SUMMIT_001519476
SUMMIT_001519040	SUMMIT_001519247	SUMMIT_001519485
SUMMIT_001519043	SUMMIT_001519250	SUMMIT_001519502
SUMMIT_001519047	SUMMIT_001519256	SUMMIT_001519509
SUMMIT_001519048	SUMMIT_001519259	SUMMIT_001519518
SUMMIT_001519053	SUMMIT_001519264	SUMMIT_001519519
SUMMIT_001519056	SUMMIT_001519270	SUMMIT_001519521
SUMMIT_001519059	SUMMIT_001519271	SUMMIT_001519527

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_001519534	SUMMIT_001519844	SUMMIT_001520597
SUMMIT_001519535	SUMMIT_001519847	SUMMIT_001520604
SUMMIT_001519541	SUMMIT_001519855	SUMMIT_001520610
SUMMIT_001519548	SUMMIT_001519857	SUMMIT_001520612
SUMMIT_001519551	SUMMIT_001519859	SUMMIT_001520786
SUMMIT_001519553	SUMMIT_001519870	SUMMIT_001520787
SUMMIT_001519564	SUMMIT_001519878	SUMMIT_001520884
SUMMIT_001519571	SUMMIT_001519888	SUMMIT_001537819
SUMMIT_001519579	SUMMIT_001519895	SUMMIT_001546267
SUMMIT_001519580	SUMMIT_001519896	SUMMIT_001546283
SUMMIT_001519588	SUMMIT_001519898	SUMMIT_001546284
SUMMIT_001519593	SUMMIT_001519907	SUMMIT_001547662
SUMMIT_001519615	SUMMIT_001519923	SUMMIT_001547675
SUMMIT_001519633	SUMMIT_001519931	SUMMIT_001548454
SUMMIT_001519634	SUMMIT_001519934	SUMMIT_001549118
SUMMIT_001519635	SUMMIT_001519941	SUMMIT_001549126
SUMMIT_001519640	SUMMIT_001519949	SUMMIT_001549381
SUMMIT_001519648	SUMMIT_001519959	SUMMIT_001549520
SUMMIT_001519653	SUMMIT_001519965	SUMMIT_001549566
SUMMIT_001519658	SUMMIT_001519970	SUMMIT_001549654
SUMMIT_001519661	SUMMIT_001519971	SUMMIT_001549655
SUMMIT_001519667	SUMMIT_001519976	SUMMIT_001549657
SUMMIT_001519681	SUMMIT_001519979	SUMMIT_001549659
SUMMIT_001519682	SUMMIT_001519986	SUMMIT_001549666
SUMMIT_001519688	SUMMIT_001520000	SUMMIT_001549936
SUMMIT_001519689	SUMMIT_001520014	SUMMIT_001550477
SUMMIT_001519695	SUMMIT_001520288	SUMMIT_001550923
SUMMIT_001519698	SUMMIT_001520322	SUMMIT_001550942
SUMMIT_001519708	SUMMIT_001520338	SUMMIT_001550943
SUMMIT_001519710	SUMMIT_001520351	SUMMIT_001550945
SUMMIT_001519715	SUMMIT_001520363	SUMMIT_001550946
SUMMIT_001519722	SUMMIT_001520379	SUMMIT_001550952
SUMMIT_001519727	SUMMIT_001520396	SUMMIT_001551031
SUMMIT_001519732	SUMMIT_001520418	SUMMIT_001562385
SUMMIT_001519733	SUMMIT_001520439	SUMMIT_001562430
SUMMIT_001519737	SUMMIT_001520474	SUMMIT_001563695
SUMMIT_001519738	SUMMIT_001520506	SUMMIT_001563699
SUMMIT_001519742	SUMMIT_001520511	SUMMIT_001565676
SUMMIT_001519779	SUMMIT_001520516	SUMMIT_001565681
SUMMIT_001519780	SUMMIT_001520521	SUMMIT_001565687
SUMMIT_001519786	SUMMIT_001520527	SUMMIT_001565691
SUMMIT_001519792	SUMMIT_001520532	SUMMIT_001566892
SUMMIT_001519799	SUMMIT_001520537	SUMMIT_001567752
SUMMIT_001519804	SUMMIT_001520543	SUMMIT_001571584
SUMMIT_001519808	SUMMIT_001520549	SUMMIT_001571589
SUMMIT_001519810	SUMMIT_001520558	SUMMIT_001571594
SUMMIT_001519814	SUMMIT_001520564	SUMMIT_001571599
SUMMIT_001519815	SUMMIT_001520569	SUMMIT_001571604
SUMMIT_001519816	SUMMIT_001520575	SUMMIT_001571608
SUMMIT_001519825	SUMMIT_001520581	SUMMIT_001571612
SUMMIT_001519830	SUMMIT_001520586	SUMMIT_001571616
SUMMIT_001519836	SUMMIT_001520592	SUMMIT_001571620

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_001571624	SUMMIT_001795407	SUMMIT_001954064
SUMMIT_001571628	SUMMIT_001798090	SUMMIT_001954065
SUMMIT_001575490	SUMMIT_001798135	SUMMIT_001954183
SUMMIT_001575495	SUMMIT_001798184	SUMMIT_001954184
SUMMIT_001575501	SUMMIT_001867645	SUMMIT_001954216
SUMMIT_001575505	SUMMIT_001874511	SUMMIT_001954218
SUMMIT_001577381	SUMMIT_001874719	SUMMIT_001954242
SUMMIT_001577384	SUMMIT_001874721	SUMMIT_001954245
SUMMIT_001577682	SUMMIT_001874929	SUMMIT_001954252
SUMMIT_001577685	SUMMIT_001874930	SUMMIT_001954402
SUMMIT_001577830	SUMMIT_001910811	SUMMIT_001954437
SUMMIT_001578063	SUMMIT_001912565	SUMMIT_001954468
SUMMIT_001579264	SUMMIT_001918121	SUMMIT_001954483
SUMMIT_001579440	SUMMIT_001918343	SUMMIT_001954521
SUMMIT_001579444	SUMMIT_001918345	SUMMIT_001954524
SUMMIT_001580094	SUMMIT_001921460	SUMMIT_001954665
SUMMIT_001580771	SUMMIT_001921960	SUMMIT_001954738
SUMMIT_001580775	SUMMIT_001922852	SUMMIT_001954762
SUMMIT_001581231	SUMMIT_001923303	SUMMIT_001954824
SUMMIT_001582501	SUMMIT_001923599	SUMMIT_001954833
SUMMIT_001583383	SUMMIT_001923700	SUMMIT_001954870
SUMMIT_001583386	SUMMIT_001924388	SUMMIT_001954912
SUMMIT_001584053	SUMMIT_001924638	SUMMIT_001955005
SUMMIT_001594947	SUMMIT_001952099	SUMMIT_001955060
SUMMIT_001607655	SUMMIT_001952551	SUMMIT_001955087
SUMMIT_001608609	SUMMIT_001952555	SUMMIT_001955100
SUMMIT_001629329	SUMMIT_001952969	SUMMIT_001955187
SUMMIT_001630311	SUMMIT_001952975	SUMMIT_001955246
SUMMIT_001631100	SUMMIT_001952976	SUMMIT_001955285
SUMMIT_001632190	SUMMIT_001953127	SUMMIT_001955296
SUMMIT_001632364	SUMMIT_001953130	SUMMIT_001955313
SUMMIT_001632675	SUMMIT_001953183	SUMMIT_001955322
SUMMIT_001632889	SUMMIT_001953186	SUMMIT_001955334
SUMMIT_001703763	SUMMIT_001953226	SUMMIT_001955471
SUMMIT_001738876	SUMMIT_001953229	SUMMIT_001955482
SUMMIT_001742819	SUMMIT_001953252	SUMMIT_001955494
SUMMIT_001742820	SUMMIT_001953255	SUMMIT_001955548
SUMMIT_001742832	SUMMIT_001953302	SUMMIT_001970930
SUMMIT_001742833	SUMMIT_001953303	SUMMIT_001971005
SUMMIT_001743276	SUMMIT_001953468	SUMMIT_001984434
SUMMIT_001743277	SUMMIT_001953470	SUMMIT_002052806
SUMMIT_001753905	SUMMIT_001953472	SUMMIT_002052828
SUMMIT_001753906	SUMMIT_001953539	SUMMIT_002052842
SUMMIT_001764337	SUMMIT_001953542	SUMMIT_002052843
SUMMIT_001776721	SUMMIT_001953616	SUMMIT_002052844
SUMMIT_001785335	SUMMIT_001953626	SUMMIT_002052845
SUMMIT_001792618	SUMMIT_001953650	SUMMIT_002052851
SUMMIT_001795321	SUMMIT_001953653	SUMMIT_002052852
SUMMIT_001795355	SUMMIT_001953714	SUMMIT_002052916
SUMMIT_001795372	SUMMIT_001953717	SUMMIT_002052917
SUMMIT_001795382	SUMMIT_001953828	SUMMIT_002052951
SUMMIT_001795404	SUMMIT_001954061	SUMMIT_002053751

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_002053822	SUMMIT_002056025	SUMMIT_002057552
SUMMIT_002053851	SUMMIT_002056036	SUMMIT_002057553
SUMMIT_002053852	SUMMIT_002056047	SUMMIT_002057554
SUMMIT_002053853	SUMMIT_002056055	SUMMIT_002057559
SUMMIT_002053855	SUMMIT_002056074	SUMMIT_002057562
SUMMIT_002053856	SUMMIT_002056427	SUMMIT_002057566
SUMMIT_002053857	SUMMIT_002056442	SUMMIT_002057570
SUMMIT_002054128	SUMMIT_002056462	SUMMIT_002057574
SUMMIT_002054133	SUMMIT_002056479	SUMMIT_002057578
SUMMIT_002054138	SUMMIT_002056500	SUMMIT_002057582
SUMMIT_002054173	SUMMIT_002056519	SUMMIT_002057586
SUMMIT_002054210	SUMMIT_002056536	SUMMIT_002057590
SUMMIT_002054212	SUMMIT_002056555	SUMMIT_002057594
SUMMIT_002054233	SUMMIT_002056575	SUMMIT_002057598
SUMMIT_002054235	SUMMIT_002056593	SUMMIT_002057602
SUMMIT_002054256	SUMMIT_002056606	SUMMIT_002057606
SUMMIT_002054264	SUMMIT_002056619	SUMMIT_002057610
SUMMIT_002054287	SUMMIT_002056642	SUMMIT_002057611
SUMMIT_002054321	SUMMIT_002056659	SUMMIT_002057612
SUMMIT_002054603	SUMMIT_002056674	SUMMIT_002057613
SUMMIT_002054620	SUMMIT_002056688	SUMMIT_002057615
SUMMIT_002054627	SUMMIT_002056704	SUMMIT_002057616
SUMMIT_002054633	SUMMIT_002056721	SUMMIT_002057617
SUMMIT_002054639	SUMMIT_002056737	SUMMIT_002057618
SUMMIT_002055060	SUMMIT_002056750	SUMMIT_002057619
SUMMIT_002055068	SUMMIT_002056764	SUMMIT_002057620
SUMMIT_002055076	SUMMIT_002056776	SUMMIT_002057621
SUMMIT_002055084	SUMMIT_002056790	SUMMIT_002057622
SUMMIT_002055092	SUMMIT_002056804	SUMMIT_002057623
SUMMIT_002055100	SUMMIT_002056820	SUMMIT_002057627
SUMMIT_002055108	SUMMIT_002056836	SUMMIT_002057631
SUMMIT_002055116	SUMMIT_002056851	SUMMIT_002057635
SUMMIT_002055125	SUMMIT_002056974	SUMMIT_002057639
SUMMIT_002055252	SUMMIT_002057086	SUMMIT_002057643
SUMMIT_002055428	SUMMIT_002057090	SUMMIT_002057647
SUMMIT_002055715	SUMMIT_002057118	SUMMIT_002057651
SUMMIT_002055727	SUMMIT_002057279	SUMMIT_002057655
SUMMIT_002055732	SUMMIT_002057356	SUMMIT_002057659
SUMMIT_002055875	SUMMIT_002057526	SUMMIT_002057663
SUMMIT_002055878	SUMMIT_002057530	SUMMIT_002057667
SUMMIT_002055881	SUMMIT_002057535	SUMMIT_002057671
SUMMIT_002055926	SUMMIT_002057538	SUMMIT_002057672
SUMMIT_002055934	SUMMIT_002057539	SUMMIT_002057673
SUMMIT_002055945	SUMMIT_002057540	SUMMIT_002057674
SUMMIT_002055953	SUMMIT_002057541	SUMMIT_002057675
SUMMIT_002055954	SUMMIT_002057542	SUMMIT_002057676
SUMMIT_002055964	SUMMIT_002057543	SUMMIT_002057677
SUMMIT_002055974	SUMMIT_002057545	SUMMIT_002057679
SUMMIT_002055985	SUMMIT_002057546	SUMMIT_002057680
SUMMIT_002055996	SUMMIT_002057547	SUMMIT_002057681
SUMMIT_002056007	SUMMIT_002057550	SUMMIT_002057682
SUMMIT_002056017	SUMMIT_002057551	SUMMIT_002057683

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_002057684	SUMMIT_002057855	SUMMIT_002057977
SUMMIT_002057688	SUMMIT_002057856	SUMMIT_002057978
SUMMIT_002057692	SUMMIT_002057857	SUMMIT_002057979
SUMMIT_002057696	SUMMIT_002057858	SUMMIT_002057980
SUMMIT_002057700	SUMMIT_002057859	SUMMIT_002057981
SUMMIT_002057704	SUMMIT_002057860	SUMMIT_002057982
SUMMIT_002057708	SUMMIT_002057861	SUMMIT_002057986
SUMMIT_002057712	SUMMIT_002057862	SUMMIT_002057990
SUMMIT_002057716	SUMMIT_002057863	SUMMIT_002057994
SUMMIT_002057720	SUMMIT_002057864	SUMMIT_002057998
SUMMIT_002057724	SUMMIT_002057868	SUMMIT_002058002
SUMMIT_002057728	SUMMIT_002057872	SUMMIT_002058006
SUMMIT_002057732	SUMMIT_002057876	SUMMIT_002058010
SUMMIT_002057733	SUMMIT_002057880	SUMMIT_002058014
SUMMIT_002057734	SUMMIT_002057884	SUMMIT_002058018
SUMMIT_002057735	SUMMIT_002057888	SUMMIT_002058021
SUMMIT_002057736	SUMMIT_002057892	SUMMIT_002058025
SUMMIT_002057737	SUMMIT_002057896	SUMMIT_002058029
SUMMIT_002057738	SUMMIT_002057899	SUMMIT_002058030
SUMMIT_002057739	SUMMIT_002057903	SUMMIT_002058031
SUMMIT_002057740	SUMMIT_002057907	SUMMIT_002058032
SUMMIT_002057741	SUMMIT_002057911	SUMMIT_002058033
SUMMIT_002057742	SUMMIT_002057912	SUMMIT_002058034
SUMMIT_002057743	SUMMIT_002057913	SUMMIT_002058035
SUMMIT_002057744	SUMMIT_002057914	SUMMIT_002058036
SUMMIT_002057792	SUMMIT_002057915	SUMMIT_002058037
SUMMIT_002057793	SUMMIT_002057916	SUMMIT_002058038
SUMMIT_002057794	SUMMIT_002057917	SUMMIT_002058039
SUMMIT_002057795	SUMMIT_002057918	SUMMIT_002058040
SUMMIT_002057796	SUMMIT_002057919	SUMMIT_002058042
SUMMIT_002057797	SUMMIT_002057920	SUMMIT_002058046
SUMMIT_002057798	SUMMIT_002057921	SUMMIT_002058049
SUMMIT_002057799	SUMMIT_002057922	SUMMIT_002058053
SUMMIT_002057800	SUMMIT_002057923	SUMMIT_002058057
SUMMIT_002057801	SUMMIT_002057927	SUMMIT_002058061
SUMMIT_002057802	SUMMIT_002057931	SUMMIT_002058065
SUMMIT_002057803	SUMMIT_002057935	SUMMIT_002058069
SUMMIT_002057804	SUMMIT_002057939	SUMMIT_002058073
SUMMIT_002057808	SUMMIT_002057942	SUMMIT_002058077
SUMMIT_002057812	SUMMIT_002057946	SUMMIT_002058081
SUMMIT_002057816	SUMMIT_002057950	SUMMIT_002058085
SUMMIT_002057820	SUMMIT_002057954	SUMMIT_002058086
SUMMIT_002057824	SUMMIT_002057958	SUMMIT_002058087
SUMMIT_002057828	SUMMIT_002057962	SUMMIT_002058088
SUMMIT_002057832	SUMMIT_002057966	SUMMIT_002058089
SUMMIT_002057836	SUMMIT_002057970	SUMMIT_002058090
SUMMIT_002057840	SUMMIT_002057971	SUMMIT_002058091
SUMMIT_002057844	SUMMIT_002057972	SUMMIT_002058092
SUMMIT_002057848	SUMMIT_002057973	SUMMIT_002058093
SUMMIT_002057852	SUMMIT_002057974	SUMMIT_002058094
SUMMIT_002057853	SUMMIT_002057975	SUMMIT_002058095
SUMMIT_002057854	SUMMIT_002057976	SUMMIT_002058096

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_002058097	SUMMIT_002058239	SUMMIT_002079091
SUMMIT_002058101	SUMMIT_002058243	SUMMIT_002079120
SUMMIT_002058105	SUMMIT_002058247	SUMMIT_002079135
SUMMIT_002058109	SUMMIT_002058251	SUMMIT_002079141
SUMMIT_002058113	SUMMIT_002058255	SUMMIT_002079162
SUMMIT_002058117	SUMMIT_002058259	SUMMIT_002079178
SUMMIT_002058121	SUMMIT_002058263	SUMMIT_002079407
SUMMIT_002058125	SUMMIT_002058267	SUMMIT_002079410
SUMMIT_002058128	SUMMIT_002058273	SUMMIT_002079414
SUMMIT_002058132	SUMMIT_002058279	SUMMIT_002079417
SUMMIT_002058136	SUMMIT_002058283	SUMMIT_002079420
SUMMIT_002058140	SUMMIT_002058287	SUMMIT_002079423
SUMMIT_002058144	SUMMIT_002058291	SUMMIT_002079426
SUMMIT_002058145	SUMMIT_002058297	SUMMIT_002079429
SUMMIT_002058146	SUMMIT_002058301	SUMMIT_002079431
SUMMIT_002058147	SUMMIT_002058305	SUMMIT_002079434
SUMMIT_002058148	SUMMIT_002058311	SUMMIT_002079438
SUMMIT_002058149	SUMMIT_002058317	SUMMIT_002079441
SUMMIT_002058150	SUMMIT_002058323	SUMMIT_002079444
SUMMIT_002058151	SUMMIT_002058329	SUMMIT_002079447
SUMMIT_002058152	SUMMIT_002058365	SUMMIT_002079450
SUMMIT_002058153	SUMMIT_002058403	SUMMIT_002079453
SUMMIT_002058154	SUMMIT_002058441	SUMMIT_002079456
SUMMIT_002058155	SUMMIT_002058485	SUMMIT_002079459
SUMMIT_002058159	SUMMIT_002058530	SUMMIT_002079461
SUMMIT_002058167	SUMMIT_002058572	SUMMIT_002079464
SUMMIT_002058171	SUMMIT_002058613	SUMMIT_002079467
SUMMIT_002058175	SUMMIT_002058653	SUMMIT_002079470
SUMMIT_002058179	SUMMIT_002058700	SUMMIT_002079473
SUMMIT_002058183	SUMMIT_002058749	SUMMIT_002079476
SUMMIT_002058187	SUMMIT_002058799	SUMMIT_002079479
SUMMIT_002058191	SUMMIT_002058862	SUMMIT_002079482
SUMMIT_002058195	SUMMIT_002059144	SUMMIT_002079484
SUMMIT_002058199	SUMMIT_002059389	SUMMIT_002079487
SUMMIT_002058203	SUMMIT_002059390	SUMMIT_002079489
SUMMIT_002058207	SUMMIT_002059391	SUMMIT_002079492
SUMMIT_002058208	SUMMIT_002059392	SUMMIT_002079494
SUMMIT_002058209	SUMMIT_002061641	SUMMIT_002079497
SUMMIT_002058210	SUMMIT_002061925	SUMMIT_002079499
SUMMIT_002058211	SUMMIT_002061928	SUMMIT_002079502
SUMMIT_002058212	SUMMIT_002061929	SUMMIT_002079504
SUMMIT_002058213	SUMMIT_002061931	SUMMIT_002079507
SUMMIT_002058214	SUMMIT_002061933	SUMMIT_002079509
SUMMIT_002058215	SUMMIT_002061934	SUMMIT_002079512
SUMMIT_002058216	SUMMIT_002069817	SUMMIT_002079527
SUMMIT_002058217	SUMMIT_002069818	SUMMIT_002079530
SUMMIT_002058218	SUMMIT_002069822	SUMMIT_002079532
SUMMIT_002058219	SUMMIT_002069823	SUMMIT_002079535
SUMMIT_002058223	SUMMIT_002071500	SUMMIT_002079537
SUMMIT_002058227	SUMMIT_002072913	SUMMIT_002079540
SUMMIT_002058231	SUMMIT_002074238	SUMMIT_002079542
SUMMIT_002058235	SUMMIT_002077887	SUMMIT_002079545

HIGHLY CONFIDENTIAL**Appendix 2**

SUMMIT_002079547	SUMMIT_002080147	SUMMIT_002103769
SUMMIT_002079550	SUMMIT_002080180	SUMMIT_002103771
SUMMIT_002079552	SUMMIT_002080182	SUMMIT_002103774
SUMMIT_002079560	SUMMIT_002080209	SUMMIT_002103777
SUMMIT_002079562	SUMMIT_002080244	SUMMIT_002103780
SUMMIT_002079569	SUMMIT_002080277	SUMMIT_002103782
SUMMIT_002079571	SUMMIT_002080290	SUMMIT_002103785
SUMMIT_002079574	SUMMIT_002080296	SUMMIT_002103788
SUMMIT_002079576	SUMMIT_002080349	SUMMIT_002103791
SUMMIT_002079579	SUMMIT_002080391	SUMMIT_002103793
SUMMIT_002079590	SUMMIT_002080426	SUMMIT_002103795
SUMMIT_002079608	SUMMIT_002080435	SUMMIT_002103797
SUMMIT_002079901	SUMMIT_002080437	SUMMIT_002103799
SUMMIT_002079903	SUMMIT_002081339	SUMMIT_002103802
SUMMIT_002079906	SUMMIT_002081343	SUMMIT_002103805
SUMMIT_002079909	SUMMIT_002081352	SUMMIT_002103808
SUMMIT_002079949	SUMMIT_002081458	SUMMIT_002103811
SUMMIT_002079965	SUMMIT_002081460	SUMMIT_002103815
SUMMIT_002079967	SUMMIT_002081465	SUMMIT_002103817
SUMMIT_002079975	SUMMIT_002081473	SUMMIT_002103849
SUMMIT_002079983	SUMMIT_002081482	SUMMIT_002103858
SUMMIT_002080013	SUMMIT_002081567	SUMMIT_002103951
SUMMIT_002080026	SUMMIT_002081596	SUMMIT_002103952
SUMMIT_002080032	SUMMIT_002081600	SUMMIT_002103953
SUMMIT_002080034	SUMMIT_002081637	
SUMMIT_002080041	SUMMIT_002081657	
SUMMIT_002080088	SUMMIT_002087439	
SUMMIT_002080095	SUMMIT_002087891	
SUMMIT_002080098	SUMMIT_002088193	
SUMMIT_002080102	SUMMIT_002088521	
SUMMIT_002080104	SUMMIT_002088738	
SUMMIT_002080107	SUMMIT_002089033	
SUMMIT_002080116	SUMMIT_002089126	
SUMMIT_002080127	SUMMIT_002103762	
SUMMIT_002080145	SUMMIT_002103766	

XII. Publicly Available Information

AICPA Practice Aid. 06-4.

U.S. Bureau of Labor Statistics, Employment Cost Index (NAICS basis), 2007-2018 – Series I.D.

CIU3010000000000Q and CIU3010000000000Q (Not Seasonally Adjusted) at

<https://data.bls.gov/pdq/SurveyOutputServlet>

<http://prosecutor.cuyahogacounty.us/en-US/about-the-office.aspx>

<http://prosecutor.cuyahogacounty.us/en-US/units-divisions.aspx>

<http://publicdefender.cuyahogacounty.us/>

<http://publicdefender.cuyahogacounty.us/en-US/Divisions.aspx>

<http://domestic.cuyahogacounty.us/en-US/Ohio-Court-System.aspx>

<https://cp.cuyahogacounty.us/>

<https://cp.cuyahogacounty.us/court-resources/specialty-courts/>

<https://opd.ohio.gov/Reimbursement/Reimbursement#105161-application-fee--recoupment>

<https://opd.ohio.gov/Portals/0/PDF/Reimbursement/Reimbursement-Percent-History.pdf?ver=2019-02-21-093626-180>

HIGHLY CONFIDENTIAL

Appendix 2

<https://www.cnn.com/2018/12/12/health/drugs-overdose-fentanyl-study/index.html>
<http://www.businessdictionary.com/definition/opportunity-cost.html>
<https://definitions.uslegal.com/a/assigned-counsel/>
<https://sheriff.cuyahogacounty.us/en-US/home.aspx>
<https://sheriff.cuyahogacounty.us/en-US/Law-Enforcement.aspx>
<https://sheriff.cuyahogacounty.us/en-US/narcotics.aspx>
http://executive.cuyahogacounty.us/pdf_executive/en-US/PressReleases/2014/RegionalJailAssntFinal-07-2014.pdf
<https://sheriff.cuyahogacounty.us/en-US/corrections.aspx>
<http://executive.cuyahogacounty.us/en-US/Cleveland-Prisoners-Transfer.aspx>
<http://executive.cuyahogacounty.us/en-US/Jail-Regionalization.aspx>
<https://www.kff.org/health-reform/state-indicator/state-activity-around-expanding-medicaid-under-the-affordable-care-act/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>
https://www.washingtonpost.com/graphics/2019/national/fentanyl-epidemic-obama-administration/?noredirect=on&utm_term=.b42957fe432f
<http://www.summitpcourt.net/Programs/Pages/SpecialCourts.aspx>
<http://www.summitpcourt.net/Programs/DVCourt/Pages/DVCourt1.aspx>
<http://codes.ohio.gov/orc/2929.14>
<https://juvenilecourt.summitoh.net/index.php/information/faq-definitions/frequently-asked-questions>
http://www.akron.com/editions/Akron-Ohio-News-2017-June-29/Body_scanner_expected_to_keep_drugs_out_of_jail.asp?aID=34630
<https://drc.ohio.gov/tcap>
<https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA132-HB-49>
<https://ocjs.ohio.gov/oibrs/OIBRS%20Documents/oibrsDataSpecs2017.pdf>
https://www.ocjs.ohio.gov/crime_stats_reports.stm
https://ocjs.ohio.gov/resources_reports.stm
<http://www.akronlegalnews.com/editorial/19512>
<https://www.ohio.com/article/20150711/NEWS/307119499>
<http://www.pcsao.org/pdf/advocacy/OpioidBriefingSlidesUpdated12-17.pdf>
<http://domestic.cuyahogacounty.us/en-US/Guardian-ad-Litem.aspx>
http://cfs.cuyahogacounty.us/pdf_cfs/en-US/reports/2017StatisticalReport.pdf
http://cfs.cuyahogacounty.us/pdf_cfs/en-US/reports/2016StatisticalReport.pdf
http://cfs.cuyahogacounty.us/pdf_cfs/en-US/reports/2015StatisticalReport.pdf
http://cfs.cuyahogacounty.us/pdf_cfs/en-US/reports/2014StatisticalReport.pdf
http://cfs.cuyahogacounty.us/pdf_cfs/en-US/reports/2013StatisticalReport.pdf
<http://juvenile.cuyahogacounty.us/en-US/Shelter-Care.aspx>
<https://opd.ohio.gov/Reimbursement/Reimbursement#105161-application-fee--recoupment>
<http://codes.ohio.gov/orc/2151.152v1>
<http://codes.ohio.gov/orc/3125>
<https://www.bjs.gov/index.cfm?ty=dcdetail&iid=269>
https://www.bjs.gov/content/pub/pdf/p16_sum.pdf
<https://www.bjs.gov/index.cfm?ty=qa&iid=322>
<https://www.icpsr.umich.edu/icpsrweb/NACJD/studies/4359>
<https://www.nflis.deadiversion.usdoj.gov/DesktopModules/ReportDownloads/Reports/2k17NFLISQA.pdf>
https://nsduhweb.rti.org/respweb/about_nsduh.html
<http://www.summitpcourt.net/Programs/TurningPointProgram/Pages/TurningPoint1.aspx>
[http://adamhscc.org/pdf_adamhscc/en-US/\(no%20numbers%20version%20for%20website\)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf](http://adamhscc.org/pdf_adamhscc/en-US/(no%20numbers%20version%20for%20website)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf)
<https://www.ncbi.nlm.nih.gov/pubmed/17152761>

HIGHLY CONFIDENTIAL

Appendix 2

https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_03-508.pdf
<https://www.ohioattorneygeneral.gov/Individuals-and-Families/Victims/Drug-Diversion/Prescription-Drug-Drop-Boxes>
<https://www.ohioattorneygeneral.gov/Media/News-Releases/July-2017/Three-Million-in-Grants-for-DART-and-QRT-Teams-%281%29>
 US DOJ National Drug Intelligence Center, "The Economic Impact of Illicit Drug Use on American Society" (2011).
<http://adamhscc.org/>
 Cuyahoga County Board of Health, "2018 Injury Prevention Report," available at http://opiatecollaborative.cuyahogacounty.us/pdf_OpiateCollaborative/en-US/2018AnnualReport.pdf
 "Quarterly Stakeholders Meeting." Summit County Opiate Task Force, 17 December 2018; December 13, 2017; March 9, 2016.
 Garrett, Amanda. "Drug Deaths Plunge in Summit; County Task Force Says Number of Overdoses Fell in 2018." *Akron Beacon Journal* [Akron, Ohio] 12 January 2019.
http://www.city.cleveland.oh.us/sites/default/files/forms_publications/CrimeStatsMidYear2018.pdf
<https://www.drugabuse.gov/node/pdf/21349/medications-to-treat-opioid-use-disorder>
<https://neohospitals.org/Northeast-Ohio-Hospital-Opioid-Consortium>
[http://fightingopiateabuse.ohio.gov/Portals/0/PDF/SB 319 Fact Sheet.pdf](http://fightingopiateabuse.ohio.gov/Portals/0/PDF/SB_319_Fact_Sheet.pdf)
<http://www.healthpolicyohio.org/ohio-addiction-policy-inventory-and-scorecard-prevention-treatment-and-recovery/>
<https://wholesale.ohiopmp.gov/Integration.aspx>
<https://preventionactionalliance.org/connect/the-gap-network/>
<https://preventionactionalliance.org/learn/>
<https://www.generationrx.org/>
<https://ohiochamber.com/opioid-toolkit/>
<http://dare-oh.org/>
<https://www.ohioattorneygeneral.gov/Law-Enforcement/Local-Law-Enforcement/Drugs/Drug-Use-Prevention-Program-Grant>
<https://www.pharmacytimes.com/sap-news/rite-aid-foundation-launches-prescription-drug-safety-initiative-in-ohio-high-schools->
<https://education.ohio.gov/Media/Extra-Credit-Blog/October-2018/GUEST-BLOG-Not-Even-Once-Addressing-the-Opioid-E2>
<https://www.starttalking.ohio.gov/>
<https://www.dispatch.com/news/20180619/new-ads-warn-dont-live-in-denial-ohio-talk-to-your-kids-about-opioids>
<https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/Ryan-White-Part-B-HIV-Client-Services/AIDS-Drug-Assistance-Program/>
<https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/hiv-aids-surveillance-program/welcome-to>
<https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/Hepatitis-Surveillance-Program/Hepatitis-Surveillance-Program>
<https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/Hepatitis-Prevention/hepatitis-preventionOhio>
<https://www.cleveland.com/business/2019/03/ohio-syringe-exchange-programs-double-in-three-nearly-years-report-finds.html>
<https://www.cardinalhealth.com/en/about-us/corporate-citizenship/opioid-action-program/taking-action/narcan-donation-program.html>
https://pediatrics.aappublications.org/content/pediatrics/suppl/2018/03/05/peds.2017-0900.DCSupplemental/PEDS_20170900SupplementaryData.pdf
<https://pediatrics.aappublications.org/content/141/4/e20170900>
https://opqc.net/sites/bmidrupalpopqc.chmcres.cchmc.org/files/MOMS+/2018.03.23_MOMS%2B%20One%20Pager.pdf
<http://momsOhio.org/moms-moms-to-be>

HIGHLY CONFIDENTIAL

Appendix 2

<https://ohiohome.org/news/blog/january-2019/opioidemic.aspx>
<https://www.integration.samhsa.gov/resource/sbirt-resource-page>
<https://mha.ohio.gov/Treatment/SBIRT>
<https://mha.ohio.gov/Treatment/MAT-PDOA>
<http://www.pcsao.org/programs/ohio-start>
<http://www.pcsao.org/pdf/misc/OhioSTARExecutiveSummary.pdf>
https://circlehealthservices.org/wp-content/uploads/2016/04/FreeClinic_annualreport2015_web.pdf
http://www.fairfieldadamh.org/uploads/1/3/1/0/13100616/osam_faq_brochure.pdf
<https://mha.ohio.gov/Research/Ohio-Substance-Abuse-Monitoring-OSAM-Network>
https://www.cleveland.com/metro/2018/05/specialized_cleveland_police_u.html
<https://newsroom.clevelandclinic.org/2018/04/25/cleveland-clinic-providing-safe-way-for-community-to-dispose-unneeded-medications/>
<https://sheriff.cuyahogacounty.us/en-US/RxDrugDropBoxProgram.aspx>
<https://www.recrec.org/ManagedFiles/2019%20Service%20Directory.pdf>
<https://ccdacle.org/social-action/initiatives/hope-healing-beyond-heroin>
<http://www.letsfaceheroin.com/>
<http://www.ccbh.net/wp-content/uploads/2017/07/2016-CCOTF-Annual-Report.pdf>
<http://opiatecollaborative.cuyahogacounty.us/en-US/Educational-Outreach.aspx>
https://ccdacleorg.sitedistrict.com/wp-content/uploads/filebase/social%20action/social_action/Heroin-Brochure-Cuyahoga-County_final.pdf
https://www.cleveland.com/knowntherx/2017/04/known_the_risks_campaign_is_cri.html
<http://www.clevelandtreatmentcenter.org/about.htm>
<https://circlehealthservices.org/services/hiv-services/>
www.aidstaskforce.org
<https://www.metrohealth.org/infectious-disease/hiv-aids-services>
<https://dsas.cuyahogacounty.us/en-US/ryan-white-program.aspx>
http://www.clevelandhealth.org/network/health/HIV_AIDS.php
<http://www.clevelandhealth.org/network/health/immunizations.php>
<https://www.ccbh.net/immunization-clinics-2>
<http://www.ccbh.net/opiates/>
<http://opiatecollaborative.cuyahogacounty.us/en-US/Project-DAWN.aspx>
<https://clevelandmunicipalcourt.org/judicial-services/court-programs-services/selective-intervention-program>
<https://www.metrohealth.org/obgyn/substance-use-and-pregnancy>
<https://www.211oh.org/>
<https://www.clevelandymca.org/y-haven.html>
<https://www.therecoveryvillage.com/local-rehab-resources/ohio/cleveland/>
<https://www.ohioctc.com/location/cleveland/>
<https://www.caaaddiction.org/>
<http://newdirections.co/treatment-services/>
<http://www.orcahouse.org/index.php/programs>
<http://hcfw.org/our-services/treatment/>
<https://my.clevelandclinic.org/locations/lutheran-hospital/specialties/alcohol-and-drug-recovery-center>
<https://stellamariscleveland.com/services/>
<http://communityassessment.org/>
<https://neo.salvationarmy.org/northeastohio/HarborLightPS>
<https://www.stvincentcharity.com/services-centers/behavioral-health-addiction-medicine/addiction-medicine-rosary-hall/>
<https://www.metrohealth.org/foundation/publications/foundation-annual-report>
<http://www.adamhscc.org>
<https://www.scph.org/medication-disposal/dump-box-locations>
<http://www.akron.com/akron-ohio-community-news.asp?aID=31848>

HIGHLY CONFIDENTIAL

Appendix 2

<https://www.ibh.org/treatment-programs/>
<https://www.ibh.org/treatment-programs/family-education/>
<https://www.akronumadaop.com/>
<https://co.summitoh.net/sheriff/images/stories/PDFs/2013%20annual%20report%20%20drug%20unit.pdf>
<https://www.summitcountyaddictionhelp.org/opiate-epidemic-resources-for-educators.aspx>
<https://www.summitcountyaddictionhelp.org/Data/Sites/19/pdfs/addiction-resource-guide---second-edition-8-17.pdf>
<https://www.cleveland.com/akron/2019/02/rite-aid-foundation-brings-prescription-drug-safety-program-to-akron-area-schools.html>
<https://co.summitoh.net/sheriff/index.php/administration/community-affairs/dare>
https://ccdoleorg.sitedistrict.com/wp-content/uploads/filebase/social%20action/social_action/Heroin-Brochure-Summit-County_final.pdf
<https://www.admboard.org/>
<https://www.admboard.org/recovery-support-services.aspx>
<http://akronaidscolaborative.org/aac%20history.htm>
<http://www.canapi.org>
<https://www.scph.org/std-hiv-clinics/one-life-prevention-program>
<https://www.wksu.org/post/morning-headlines-summit-county-unveils-fentanyl-testing-strips-cavs-re-sign-channing-frye#stream/0>
<https://www.scph.org/counseling/summit-safe-syringe-exchange>
<https://www.scph.org/counseling/project-dawn-narcan>
http://www.orianahouse.org/programs/summit/prog_nonresidential.php
<http://trulyreachingyou.com/>
<http://www.orianahouse.org/programs/summit/summitsubstanceabuse.php>
<http://www.akronlegalnews.com/editorial/19449>; <http://greenleafctr.org/>
<https://www.addictioncenter.com/rehabs/ohio/akron/>
<https://www.akronchildrens.org/departments/Addiction-Services-Program.html>
<https://www.summahealth.org/flourish/entries/2016/08/centeringpregnancy-helping-pregnant-mothers-struggling-with-addiction>
<https://www.uwsummit.org/211>
<https://my.clevelandclinic.org/locations/akron-general/specialties/alcohol-drug-recovery-center>
<https://pinnacletreatment.com/treatment-therapies/treatment-options/>
https://courts.ci.akron.oh.us/programs/discretionary_rehabilitation.htm
<http://ficomcommunityhousing.org>
http://www.orianahouse.org/programs/summit/crisis_center.php
<http://www.legacythree.org/>
<http://www.fh4women.org/>
<https://summitoakshospital.com/program-services/adult-inpatient/drug-alcohol-rehabilitation-program/>
<https://www.summahealth.org/medicalservices/behavioral/aboutourservices/inpatient-services/ignatia-hall-detox-unit>
<http://www.uwsummit.org/investments>
<https://oaa.osu.edu/leveraging-our-expertise-fight-opioid-crisis>
<https://www.cardinalhealth.com/en/about-us/corporate-citizenship/opioid-action-program/taking-action/prevention-education-and-better-prescribing-practices.htm>
<https://www.oca-ohio.org/trainings>
http://adamhsc.org/pdf_adamhsc/en-US/Agenda/General%20Mtg%20packet%2001-25-17.pdf
http://adamhsc.org/pdf_adamhsc/en-US/General%20Mtg%20packet,%2001-31-18.pdf
<http://prosecutor.cuyahogacounty.us/en-US/Crime-Strategies.aspx>
<http://prosecutor.cuyahogacounty.us/en-US/Economic-Crime-Unit.aspx>
http://juvenile.cuyahogacounty.us/pdf_juvenile/en-US/LocalRules/Rule%2029.pdf
<https://council.summitoh.net/index.php/legislative-information/legislation/2017/finish/131/8689>
<https://crime-data-explorer.fr.cloud.gov/downloads-and-docs>

HIGHLY CONFIDENTIAL

Appendix 2

https://sheriff.cuyahogacounty.us/pdf_sheriff/en-US/AnnualReports/2017AnnualReport.pdf

HIGHLY CONFIDENTIAL

Appendix 3

Appendix 3

HIGHLY CONFIDENTIAL

Search Terms

bunavail	dann	fenlanyl
bunavail1	daon	fentalyl
bupenorphone	darn	fentanal
buphenorphine	darwn	fentanayl
bupreanorphine	datn	fentanil
buprenarphine	daun	fentanl
buprenerphine	davn	fentanol
buprenoiphine	daw	fentantyl
buprenophine	dawl	fentanvl
buprenorohine	dawa	fentany
buprenorphene	dawan	fentanyl
buprenorphinc	dawc	fentany4
buprenorphine	dawd	fentanyal
buprenorphine5	dawe	fentanyf
buprenorphinem	dawg	fentanyi
buprenorphinp	dawin	fentanyk
buprenorphone	dawk	fentanyl
buprenotphine	dawm	fentanyli
buprenourphine	dawn	fentanyll
buprenqrphine	dawna	fentanyls
burprenorphine	dawne	fentanyr
cafentanil	dawnm	fentanyt
carefentanil	dawnn	fentapyl
carentanil	dawns	fentayl
carfentanil	dawny	fentenyl
carfenanil	dawon	fentinyl
carfenianil	daws	fentnyl
carfentani	dawt	fentonyl
carfentanii	dawu	fentranyl
carfentanil	dawun	fentynyl
carfentanil_	dawy	feotanyl
carfentanyl	dayn	fetanyl
carfentenil	dolophine	hearoin
carfentinil	dolophinel	heecoin
carfentonil	dolphine	hefoin
carientanil	eveio	heioin
cartentanil	evgio	heiroin
catfentanil	evio	heloin
dacn	evzio	henoin
dahn	evzno	heoin
dain	febtanyl	heqoin
daln	fehtanyl	her6in
damn	fenanyl	herain
dan	fenianyl	herbin

Appendix 3

HIGHLY CONFIDENTIAL

hercin	herois	naloxone
herdin	heroiu	nacan
herein	heroiv	naecan
hereoin	herojn	nafoxone
hergin	herokn	naftrexone
herin	herolin	naican
herioin	heroln	naioxone
herkin	heromin	naitrexone
hermin	heron	najoxone
hernin	herooin	nalaoxone
hero1n	heropin	nalaxone
herocn	herorin	naloaone
heroen	herotn	nalokone
herofn	herrin	nalosone
heroi	herroin	naloxane
heroia	hertoin	naloxbne
heroic	hervin	naloxene
heroig	herwin	naloxon
heroih	hesoin	naloxon6
heroii	hetoin	naloxona
heroijn	meihadone	naloxonc
heroik	melhadone	naloxonce
heroil	metadone	naloxone
heroim	methadone	naloxont
heroin	methadnne	naloxooe
heroin_	methadon	naloxpne
heroin1	methadone	naltexone
heroin2	methadone	naltraxone
heroin7	methadone_	naltreone
heroina	methadone9	naltrexonc
heroinb	methadonei	naltrexone
heroinc	methadonem	naltroxone
heroind	methadonet	naltrqzone
heroine	methadonew	naltrzone
heroing	methadose	nalttzone
heroini	methadose	naluxone
heroinm	methalone	nalxone
heroinn	methandone	naoxone
heroino	methanone	naran
heroinq	methasone	narca
heroinr	methdone	narcab
heroins	methedone	narcaib
heroinu	methndone	narcam
herioin	methodone	narcan
heroip	methsdone	narcan_
heroir	metthadone	narcan0

Appendix 3

HIGHLY CONFIDENTIAL

narcane	opiateg	opiopd
narcani	opiatel	opiord
narcann	opiates	opiorid
narcans	opiatf	opiotd
narcar	opiatl	opiote
narcarn	opiats	opipid
narcas	opiatt	opiqid
narccan	opiatu	opisid
narcen	opibid	opitate
narcn	opidid	opite
narcon	opieid	opitm
narcun	opieum	opiu
nardan	opigid	opiuud
narean	opigm	opiul
narfan	opiloid	opium
nargan	opilte	opjoid
narian	opim	opjoid
narlan	opinid	oplate
naroan	opio1d	oploid
narran	opio4d	opnate
narwan	opiod	opoid
naryan	opiodd	oppoid
natcan	opioed	opriate
natoxone	opiofd	oprium
natrexone	opioi	oproid
nattrexone	opioi4	optate
op1oid	opioia	optiate
op4oid	opioib	optium
opate	opioic	optoid
opdate	opiod	optum
opeate	opiod_	probuphin
opeoid	opioida	probuphine
opfoid	opioide	re_via
opiaid	opioidi	reaia
opiaie	opioids	rebia
opiale	opioidu	recia
opiam	opioii	refia
opiat	opioiid	regia
opiata	opioil	reia
opiatc	opioin	rejia
opiatd	opioiq	rekia
opiate	opioird	relia
opiate5	opiojd	remia
opiatea	opioId	renia
opiated	opiom	resia
opiatee		retia

Appendix 3

HIGHLY CONFIDENTIAL

reva	suboxonee	zubsol
revea	suboxones	zubsol
reveia	suboxont	zubsols
revi	suboxpne	zubsolv
revil	suboxtone	zubsolv1
revia	suboxzone	zubsolv4
reviae	subtex	
reviaw	subutex	
revic	subutext	
revid	subuxone	
revie	subxone	
revif	suboxone	
revii	suboxone	
revil	suboxone	
revim	suboxone	
revin	vivatrol	
revina	vivftrol	
revio	vivirol	
revir	vivilrol	
revis	vivitol	
revit	vivitol	
revita	vivital	
reviv	vivitol	
reviw	vivitol	
revix	vivitol	
reviz	vivitol	
revma	vivitol	
subaxone	vivitol	
sublocade	vivitol	
suboione	vivitol	
subonone	vivitol	
suboone	vivitol	
subosone	vivitol	
subovone	vivitol	
suboxone	vivitol	
suboxane	vivitol	
suboxbne	vivitol	
suboxeone	vivitol	
suboxine	vivitol	
suboxne	vivitol	
suboxon	vivitol	
suboxonae	vivitol	
suboxonc	vivitol	
suboxone	vivitol	
suboxone1	vivitol	
suboxone4	vivitol	

Highly Confidential

Appendix 4

Appendix 4
Cuyahoga County
Direct Costs

				[A]	[B]	[C] = [A] - [B]	[D]	[E]	[F] = [D] - [E]	
				Prescription			General			
Item No.	Document Reference	Period	Cost Description	Identified Opioid Cost	Cost Paid by Grant(s) / Non-County Funds	Maximum Direct Cost	Identified Opioid Cost	Cost Paid by Grant(s) / Non-County Funds	Maximum Direct Cost	Notes
ADAMHS Board										
1	2011-2017 Cash Disbursements	2011-2017	Total disbursements for opiate conferences, heroin prevention campaigns, and MAT/Suboxone/Vivitrol related expenditures.	\$ -	\$ -	\$ -	\$ 346,209	\$ 213,758	\$ 132,451	• See Appendix 4.1 for further detail of the calculations for the "Identified Opioid Cost," "Cost Paid by Grant(s) / Non-County Funds" and "Direct Cost." • Cost also referenced at "Cuyahoga County Court of Common Pleas" section of the Opiate Task Force 2016 Annual Report.
2	ADAMHS 2014 Budget (CUYAH_000013464 at CUYAH_000013476)	2014	Suboxone AoD Outpatient Treatment (St. Vincent Charity).	-	-	-	150,000	111,296	38,704	• "Cost Paid by Grant(s) / Non-County Funds" is estimated as the "Identified Opioid Cost" (\$150,000) x the funding percentages of all "Grant(s) / Non-County Funds" for AoD services in 2014 (74.2%). The "Grant(s) / Non-County Funds" percentages were determined by utilizing 2014 data reported to Ohio MHAS (OhioMHAS_2804-000000001) and the ADAMHS annual report.
3	ADAMHS 2015 Funding Recommendations (CUYAH_000012595 at CUYAH_000012868)	2015	"1.8 Million Recommendations" related to opioids: • Naloxone - Project Dawn (MetroHealth Hospitals): \$100,000 • Vivitrol Medication Assistance Pilot (TBD): 100,000 • Outreach and Payee Program (FrontLine Services): 130,000 • Field Coordinator for Heroin Awareness (Contract with Individuals in Recovery) 48,130 Total \$378,130	-	-	-	378,130	378,130	-	• The "1.8 Million Recommendations" related to crisis related programs and services. See p. 3 of ADAMHS 2015 Funding Recommendations (CUYAH_000012595 at CUYAH_000012600). • Cost paid for by Ohio Department of Mental Health and Addiction Services (Ohio MHAS).
4	ADAMHS 2015 Funding Recommendations (CUYAH_000012595 at CUYAH_000012864)	2015	New proposed core contracts regarding the expansion of sober beds with: • Stella Maris: \$200,000 • Cleveland Treatment Center: 200,000 Total \$400,000	-	-	-	400,000	219,679	180,321	• "Cost Paid by Grant(s) / Non-County Funds" is estimated as the "Identified Opioid Cost" (\$400,000) x the funding percentages of all "Grant(s) / Non-County Funds" for AoD services in 2015 (54.9%). The "Grant(s) / Non-County Funds" percentages were determined by utilizing 2015 data reported to Ohio MHAS (OhioMHAS_2804-000000002) and the ADAMHS annual report. • Cost also referenced at p. 4 of ADAMHS 2015 Annual Report (CUYAH_000012561 at CUYAH_000012565).
5	ADAMHS 2016 Budget Summary (CUYAH_000013813 at CUYAH_000013813)	2016	Prevention Campaigns (Suicide, Gambling, Heroin, etc.) • Heroin Estimate: \$300,000 / 3 = \$100,000	-	-	-	100,000	58,035	41,965	• "Identified Opioid Cost" estimated as 1/3 of the budgeted amount (\$300,000) for Prevention Campaigns (Suicide, Gambling, Heroin, etc.) to conservatively account for Heroin out of the three stated campaigns. • "Cost Paid by Grant(s) / Non-County Funds" is estimated as the "Identified Opioid Cost" (\$100,000) x the funding percentages of all "Grant(s) / Non-County Funds" for AoD services in 2016 (58.0%). The "Grant(s) / Non-County Funds" percentages were determined by utilizing 2016 data reported to Ohio MHAS (OhioMHAS_2804-000000003) and the ADAMHS annual report.
6	ADAMHS Efforts to Combat Opioid / Heroin Crisis (CUYAH_000018728 at CUYAH_000018728, CUYAH_000018731)	2016-2017	MetroHealth Project Dawn Program (2016): \$100,000 *Prevention Services (2017): 2,164,611 Total \$2,264,611 *Prevention Services includes Fentanyl Test Strip Program and Prevention Campaigns	-	-	-	2,264,611	1,269,308	995,303	• "Cost Paid by Grant(s) / Non-County Funds" is estimated as the ("Identified Opioid Cost" for 2016 (\$100,000) x the funding percentages of all "Grant(s) / Non-County Funds" for AoD services in 2016 (58.0%)) + ("Identified Opioid Cost" for 2017 (\$2,164,611) x the funding percentages of all "Grant(s) / Non-County Funds" for AoD services in 2017 (56.0%)). The "Grant(s) / Non-County Funds" percentages were determined by utilizing 2016 and 2017 data reported to Ohio MHAS (OhioMHAS_2804-000000003 and OhioMHAS_2804-000000004) and the ADAMHS annual report. • Excludes the \$250,000 from Cuyahoga County and the \$1,000,000 contribution toward ambulatory detoxification and the expansion of its treatment and recovery services to combat the heroin crisis (see item no. 7 - "Cuyahoga County & City of Cleveland Tackling Heroin Partnership Document").
7	Cuyahoga County & City of Cleveland Tackling Heroin Partnership Document (CUYAH_012582973 at CUYAH_012582973)	2017	<u>Cuyahoga County & City of Cleveland Tackling Heroin Partnership:</u> MAT Based Services and Sober Beds: \$2,647,277 Ambulatory Detoxification Initiative: 255,054 Recovery Supports: 625,000 Medication - Vivitrol: 100,000 Medication - Naloxone: 100,000 Quick Response Protocol Pilot Initiative: 200,000 Total \$3,927,331	-	-	-	3,927,331	3,103,758	823,573	• "Cost Paid by Grant(s) / Non-Local Funds" includes a contribution of \$250,000 from the City of Cleveland, \$2,125,000 in grant money from the CURES Act, and \$728,758 (calculated the \$1,302,331 paid from ADAMHS reserves x the funding percentages of all "Grant(s) / Non-County Funds" for AoD services in 2017 (56.0%)). The "Grant(s) / Non-County Funds" percentages were determined by utilizing 2017 data reported to Ohio MHAS (OhioMHAS_2804-000000004) and the ADAMHS annual report. • Cost also referenced at p. 3 of ADAMHS 2016 Annual Report, p. 4 of ADAMHS 2017 Annual Report (CUYAH_000012577 at CUYAH_000012581), and Cuyahoga County & City of Cleveland Tackling Heroin Partnership, 2016 (CUYAH_000018761).

Appendix 4
Cuyahoga County
Direct Costs

				[A]	[B]	[C] = [A] - [B]	[D]	[E]	[F] = [D] - [E]	
				Prescription			General			
Item No.	Document Reference	Period	Cost Description	Identified Opioid Cost	Cost Paid by Grant(s) / Non-County Funds	Maximum Direct Cost	Identified Opioid Cost	Cost Paid by Grant(s) / Non-County Funds	Maximum Direct Cost	Notes
8	2018 ADAMHS Funding Recommendations (CUYAH_001350090 at CUYAH_001350093)	2017-2018	AoD Suboxone (Rosary Hall) - St. Vincent Charity • Total 2017 Contract Amount: \$40,000 • 2018 Recommendation: <u>11,900</u> Total \$51,900	-	-	-	51,900	29,042	22,858	• See "Outpatient Treatment" section of the 2018 ADAMHS Funding Recommendations for further detail. • "Cost Paid by Grant(s) / Non-County Funds" is estimated as the "Identified Opioid Cost" (\$51,900) x the funding percentages of all non-county funds for AoD services in 2017 (56.0%) because the data was not available for 2018. The "Grant(s) / Non-County Funds" percentages were determined by utilizing 2017 data reported to Ohio MHAS (OhioMHAS_2804-00000004) and the ADAMHS annual report. • Excludes the \$100,000 Project Dawn expenditures because it is already accounted for in item no. 7 - "Cuyahoga County & City of Cleveland Tackling Heroin Partnership Document" (see "Medication - Naloxone").
Subtotal - ADAMHS Board				\$ -	\$ -	\$ -	\$ 7,618,181	\$ 5,383,007	\$ 2,235,174	
Office of the Prosecutor										
9	Office of the Prosecutor, 2015 Report to the Public (CUYAH_012970490 at CUYAH_012970501)	2015	Launch of an awareness campaign (www.LetsFaceHeroin.com).	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ 100,000	• Cost paid for by county forfeiture funds.
Subtotal - Office of the Prosecutor				\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ 100,000	
Court of Common Pleas										
10	Cuyahoga 2012 Single Audit (CUYAH_001974107 at CUYAH_001974116, CUYAH_001974376, CUYAH_001974377)	2012	"Adult Drug Court Opiate" and "Drug Court Opiate" expenditures • Total Adult Drug Court Opiate: \$305,937 • Total Drug Court Opiate: 40,601 • Less: DOJ/BJA Drug Court Opiate: <u>(99,968)</u> Total: \$246,570	\$ -	\$ -	\$ -	\$ 346,538	\$ 99,968	\$ 246,570	• "Cost Paid by Grant(s) / Non-County Funds" also referenced at Cuyahoga Resolutions, 2011-2017 Related to Opiate Additions (related to County Council of Cuyahoga County, Ohio - Resolution Nos. R2012-0002, items D and E).
11	Cuyahoga 2013 Single Audit (CUYAH_001974448 at CUYAH_001974453, CUYAH_001974457, CUYAH_001974720, CUYAH_001974721)	2013	"Adult Drug Court Opiate" and "Drug Court Opiate" expenditures. • Total Adult Drug Court Opiate \$539,065 • Total Drug Court Opiate: 136,327 • Less: DOJ/BJA Adult Drug Court Opiate 11-12: (97,320) • Less: DOJ/BJA Adult Drug Court Opiate FY12-14: (286,316) • Less: DOJ/BJA Adult Drug Court Opiate FY12-14: <u>(136,327)</u> Total: \$155,429	-	-	-	675,392	519,963	155,429	• "Cost Paid by Grant(s) / Non-County Funds" also referenced at Cuyahoga Resolutions, 2011-2017 Related to Opiate Additions (related to County Council of Cuyahoga County, Ohio - Resolution Nos. R2012-0002, items D and E, and R2013-0057, item I).
12	Cuyahoga 2014 Single Audit (CUYAH_001974795 at CUYAH_001974799, CUYAH_001974803, CUYAH_001975058)	2014	"Adult Drug Court Opiate" and "Drug Court Opiate" expenditures. • Total Adult Drug Court Opiate: \$431,335 • Total Drug Court Opiate: 115,242 • Less: DOJ/BJA Adult Drug Court Opiate 11/12: (147,000) • Less: DOJ/BJA Adult Drug Court Opiate FY12-14: (215,860) • Less: DOJ/BJA Adult Drug Court Opiate FY12-14: <u>(115,242)</u> Total: \$68,475	-	-	-	546,577	478,102	68,475	• "Cost Paid by Grant(s) / Non-County Funds" also referenced at Cuyahoga Resolutions, 2011-2017 Related to Opiate Additions (related to County Council of Cuyahoga County, Ohio - Resolution Nos. R2012-0002, items D and E, R2013-0057, item I, and R2014-0051, item K).
13	Cuyahoga 2015 Single Audit (CUYAH_001975132 at CUYAH_001975136, CUYAH_001975140, CUYAH_001975420)	2015	"Adult Drug Court Opiate" and "Drug Court Opiate" expenditures. • Adult Drug Court Opiate: \$75,603 • Drug Court Opiate: 179 • Less: DOJ/BJA Adult Drug Court Opiate 11/12: (12,629) • Less: DOJ/BJA Adult Drug Court Opiate 12/13: (62,974) • Less: DOJ/BJA Adult Drug Court Opiate FY12-14: <u>(179)</u> Total: \$0	-	-	-	75,782	75,782	-	• "Cost Paid by Grant(s) / Non-County Funds" also referenced at Cuyahoga Resolutions, 2011-2017 Related to Opiate Additions (related to County Council of Cuyahoga County, Ohio - Resolution Nos. R2012-0002, items D and E, and R2013-0057, item I, and R2014-0051, item K).
14	Court of Common Pleas 2016 Annual Report (CUYAH_001349519 at CUYAH_001349595)	2016	"Court Innovation Grant" award to target Fentanyl use among Drug Court participants paid by the Supreme Court of Ohio.	-	-	-	75,000	75,000	-	• Cost paid for by the Supreme Court of Ohio.

Appendix 4
Cuyahoga County
Direct Costs

				Prescription			General			
Item No.	Document Reference	Period	Cost Description	Identified Opioid Cost	Cost Paid by Grant(s) / Non-County Funds	Maximum Direct Cost	Identified Opioid Cost	Cost Paid by Grant(s) / Non-County Funds	Maximum Direct Cost	Notes
15	Opiate Task Force 2016 Annual Report	2016	Contribution to Salvation Army – Harbor Light for a pilot program to support access to Vivitrol.	-	-	-	100,000	-	100,000	• See "Cuyahoga County Court of Common Pleas" section of the Opiate Task Force 2016 Annual Report for further detail of the "Direct Cost."
16	Cuyahoga Resolutions, 2011-2017 Related to Opiate Addictions (CUYAH_000018175 at CUYAH_000018176)	2016	Adult Drug Court expenditures paid by Substance Abuse and Mental Health Services Administration.	-	-	-	306,301	306,301	-	• See County Council of Cuyahoga County, Ohio - Resolution No. 2016-0234, item D for the amount paid by Substance Abuse and Mental Health Services Administration ("Cost Paid by Grant(s) / Non-County Funds").
17	Court of Common Pleas 2017 Annual Report (CUYAH_001349609 at CUYAH_001349679)	2017	"Community Corrections Act" grants and a Supreme Court grant for fentanyl testing	-	-	-	200,000	200,000	-	• See "Drug Testing Laboratory" section of the Court of Common Pleas 2017 Annual Report. • Cost paid for by the "Community Corrections Act" grants and a Supreme Court grant.
18	Cuyahoga Resolutions, 2011-2017 Related to Opiate Addictions (CUYAH_000018175 at CUYAH_000018177)	2017	TASC Adult Drug Court expenditures.	-	-	-	316,673	-	316,673	• See County Council of Cuyahoga County, Ohio - Resolution No. 2017-0021, item AI. • The funding is supported by the county ADAMHS Board.
19	Cuyahoga Resolutions, 2011-2017 Related to Opiate Addictions (CUYAH_000018175 at CUYAH_000018176)	2015-2017	Agreement with ADAMHS for residential and intensive outpatient treatment services in connection with the Drug Court Expansion Project.	-	-	-	568,197	568,197	-	• "Identified Opioid Cost" and "Cost Paid by Grant(s) / Non-County Funds" represent the budgeted cost. The actual cost is not known (related to County Council of Cuyahoga County, Ohio - Resolution No. 2015-0009). • Agreement funded by Substance Abuse and Mental Health Services Administration (SAMHSA) grant.
20	Cuyahoga Resolutions, 2011-2017 Related to Opiate Addictions (CUYAH_000018175 at CUYAH_000018176)	2015-2017	Agreement with ADAMHS for Adult Probation Substance Abuse Residential Treatment Program.	-	-	-	2,380,395	240,000	2,140,395	• "Identified Opioid Cost" represents the budgeted cost as the actual cost is not known. Agreement funded 89.9% by the general fund and 10.1% by Community Corrections Act grants. • Also see County Council of Cuyahoga County, Ohio - Resolution No. 2015-0010. • "Direct Cost" is calculated as 89.9% of the "Identified Opioid Cost" (related to resolution no. 2015-0010).
21	SAMHSA Notice of Award, MAT Drug Court (CUYAH_000088861 at CUYAH_000088862)	2016-2019	SAMHSA Notice of Award, MAT Drug Court: Award per year: \$325,000 Awarded for: 3 years Total: \$975,000	-	-	-	975,000	975,000	-	• Cost also referenced on the U.S. Department of Health and Human Services, SAMHSA website (https://www.samhsa.gov/grants-awards-by-state/OH/discretionary/2016/details?page=6). • Cost paid for by SAMHSA grant.
Subtotal - Court of Common Pleas				\$ -	\$ -	\$ -	\$ 6,565,855	\$ 3,538,313	\$ 3,027,542	
Juvenile Court										
22	Court of Common Pleas - Juvenile Division 2017 Annual Report	2017	Hiring of three additional magistrates in 2017 to hear private custody dockets related to children placement in foster care due to opioid abuse. • Total Compensation Estimate: \$105,931 x 3 = \$317,793	\$ -	\$ -	\$ -	\$ 317,793	\$ -	\$ 317,793	• See p. 7 of the Court of Common Pleas, Juvenile Division 2017 Annual Report for the three additional magistrates hired. • "Identified Opioid Cost" is calculated as the average estimated compensation of an additional magistrate (\$105,931) x the number of additional magistrates (3). See CUYAH_002426286, CUYAH_014627783, and CUYAH_001714366 for further detail.
Subtotal - Juvenile Court				\$ -	\$ -	\$ -	\$ 317,793	\$ -	\$ 317,793	
Sheriff's Department										
23	Sheriff's Department 2015 Annual Report (CUYAH_000120708 at CUYAH_000120746)	2013-2015	Cuyahoga County Rx Drug Box Program provided 49 Rx Drug Drop Boxes. • Total Rx Drug Drop Box Estimate: 49 x \$718.18 = \$35,191	\$ 35,191	\$ -	\$ 35,191	\$ -	\$ -	\$ -	• The average cost of a Rx Drug Drop Box is estimated as the average cost of the 11 Rx Drug Drop Boxes from the 2013 Cash Disbursement and 2015 Cash Disbursement files (\$718.18 average cost per box). See Appendix 4.1 for further detail. • "Direct Cost" is estimated as the average cost per Rx Drug Drop Box (\$718.18) x the 49 Rx Drug Drop Boxes.
Subtotal - Sheriff's Department				\$ 35,191	\$ -	\$ 35,191	\$ -	\$ -	\$ -	
Medical Examiner										
24	Cuyahoga Medical Examiner's Memorandum (CUYAH_001629584 at CUYAH_001629584, CUYAH_001629585)	2015-2016	Heroin and fentanyl related cost commitments: • 2015-2016 Personnel: \$100,000 • Supplies & testing: 197,000 • Body transport costs: 142,000 Total \$439,000	\$ -	\$ -	\$ -	\$ 439,000	\$ 74,572	\$ 364,428	• "Identified Opioid Cost" also referenced in the 2017 Coordination Plan (CUYAH_001714432). • "Cost Paid by Grant(s) / Non-County Funds" is estimated as the "Identified Opioid Cost" for 2015-2016 (\$439,000) x the weighted average percentage of out-of-county autopsies in 2015 and 2016 (17.0%). See Cuyahoga 2016/2017 Budget Plan, p. 83 and Cuyahoga 2018/2019 Budget Plan (CUYAH_000010910), at "Medical Examiner" section (CUYAH_000010947) for the number of autopsies in 2015 and 2016.

Appendix 4
Cuyahoga County
Direct Costs

				[A]	[B]	[C] = [A] - [B]	[D]	[E]	[F] = [D] - [E]	
				Prescription			General			
Item No.	Document Reference	Period	Cost Description	Identified Opioid Cost	Cost Paid by Grant(s) / Non-County Funds	Maximum Direct Cost	Identified Opioid Cost	Cost Paid by Grant(s) / Non-County Funds	Maximum Direct Cost	Notes
25	Cuyahoga Medical Examiner's Memorandum (CUYAH_001629584 at CUYAH_001629584, CUYAH_001629585)	2017	Heroin and fentanyl related cost commitments for • Personnel: \$415,000 • Equipment: 550,000 • Supplies & testing: 225,000 • Body transport costs: <u>250,000</u> Total: \$1,440,000	-	-	-	1,440,000	330,593	1,109,407	• "Cost Paid by Grant(s) / Non-County Funds" is estimated as the "Identified Opioid Cost" for 2017 (\$1,440,000) x the percentage of out-of-county autopsies in 2017 (23.0%). See Cuyahoga 2018/2019 Budget Plan (CUYAH_000010910), at "Medical Examiner" section (CUYAH_000010947) for the number of autopsies in 2017. • Assumed the \$500,000 in estimated "Shortfalls" due to rising caseloads associated with opioids (see October 2017 Budget and Management Update - CUYAH_000017941 at CUYAH_000017942) are included in the \$1,440,000 amount per the Cuyahoga County Medical Examiner's Memorandum (CUYAH_001629584).
26	Cuyahoga 2016-2017 Budget Plan (CUYAH_005987279 at CUYAH_005987363)	2016-2017	Hiring of seven additional employees in the Regional Crime Lab to assist with the growing heroin epidemic and the recent growth in Fentanyl-related and gun-related deaths. Budgeted Cost: \$532,176 Budgeted Years: <u>2 years</u> Total: \$1,064,352	-	-	-	1,064,352	215,587	848,765	• See "Medical Examiner" section of the Cuyahoga 2016-2017 Budget Plan for further detail of the "Identified Opioid Cost." • "Cost Paid by Grant(s) / Non-County Funds" is estimated as the ("Identified Opioid Cost" for 2016 (\$532,176) x the percentage of out-of-county autopsies in 2016 (17.6%) + ("Identified Opioid Cost" for 2017 (\$532,176) x the percentage of out-of-county autopsies in 2017 (23.0%)). See Cuyahoga 2018/2019 Budget Plan (CUYAH_000010910), at "Medical Examiner" section (CUYAH_000010947) for the number of autopsies in 2016 and 2017.
27	Cuyahoga 2018-2019 Budget Plan (CUYAH_000010910 at CUYAH_000010947)	2018	Hiring of five additional employees (four forensic scientists and one pathology assistant) to assist in responding to the opioid crisis. • Total Compensation Estimate: (\$81,242 x 4) + (\$83,116 x 1) = \$408,083	-	-	-	408,083	93,687	314,396	• "Identified Opioid Cost" calculated as the estimated compensation of an additional pathology assistant + (the estimated compensation of a forensic scientist x the number of additional forensic scientists (4)). See CUYAH_002426286, CUYAH_014627783, and CUYAH_001714366 for further detail. • "Cost Paid by Grant(s) / Non-County Funds" is estimated as the "Identified Opioid Cost" x the percentage of out-of-county autopsies in 2017 (23.0%) because the data was not available for 2018. See Cuyahoga 2018/2019 Budget Plan (CUYAH_000010910), at "Medical Examiner" section (CUYAH_000010947) for the number of autopsies in 2017.
Subtotal - Medical Examiner				\$ -	\$ -	\$ -	\$ 3,351,435	\$ 714,439	\$ 2,636,996	
Division Not Known										
28	2012-2017 Cash Disbursements	2012-2017	Total disbursements for opioid related goods or services.	\$ 5,485	\$ -	\$ 5,485	\$ 128,164	\$ 114,116	\$ 14,047	• See Appendix 4.1 for further detail of the "Identified Opioid Cost," "Cost Paid by Grant(s) / Non-County Funds" and "Direct Cost."
Subtotal - Division Not Known				\$ 5,485	\$ -	\$ 5,485	\$ 128,164	\$ 114,116	\$ 14,047	
Total				\$ 40,676	\$ -	\$ 40,676	\$ 18,081,428	\$ 9,749,875	\$ 8,331,553	

Notes:

1. "Identified Opioid Cost" represents the actual/estimated amount of a specific cost relating to opioid abuse.
2. "Prescription" represents the actual/estimated amount of the opioid abuse ("Identified Opioid Cost") relating to prescription opioid abuse.
3. "General" represents the actual/estimated amount of the opioid abuse ("Identified Opioid Cost") relating to general opioid abuse.
4. "Cost Paid by Grant(s) / Non-County Funds" represents the amount of the opioid cost paid through grants or non-county funds.
5. The total "Direct Costs" for 2018 = \$319,637. See Item Nos. 8 and 27 [(11,900 x 44.0%) + 314,396].
6. At this time I have not analyzed Children and Family Services. Pursuant to the Court's recent rulings, I will supplement my report to include an analysis of Children and Family Services upon receipt of the underlying case files from Plaintiffs.

Appendix 4.1
Cuyahoga County
Direct Costs - Cash Disbursement Detail

								[A]	[B]	[C] = [A] - [B]	[D]	[E]	[F] = [D] - [E]
Item No.	Document Reference	Posted Date	Document Type	Vendor Name	Description	Fund	Sub-Fund	Prescription			General		
								Identified Opioid Cost	Cost Paid by Grant(s) / Non-County Funds	Maximum Direct Cost	Identified Opioid Cost	Cost Paid by Grant(s) / Non-County Funds	Maximum Direct Cost
ADAMHS Board													
1	2011 Cash Disbursements (CUYAH 005962707)	12/15/2011	CK1107323	CUYAHOGA COUNTY	ENHANCED OPIATE DEPENDENCY SER	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	\$ -	\$ -	\$ -	\$ 10,000	\$ 7,420	\$ 2,580
2	2012 Cash Disbursements (CUYAH 005968204)	9/13/2012	CK1205096	CUYAHOGA COUNTY	2012 OPIATE CONFERENCE	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	2,500	1,855	645
3	2014 Cash Disbursements (CUYAH 005978560)	2/18/2014	CK1400886	CITY NEWS NEWSPAPER LLC	14 INV.19954 HEROIN CAMPAIGN	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	2,200	1,632	568
4	2014 Cash Disbursements (CUYAH 005978560)	2/18/2014	CK1400887	YOUR TEEN INC	14 INV.254 HERION PREVENTION	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	600	445	155
5	2014 Cash Disbursements (CUYAH 005978560)	4/16/2014	JE1400504		14 3/2014 HEROIN PREVENTION EXPENSE	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	80,593	59,798	20,795
6	2015 Cash Disbursements (CUYAH 005984095)	3/5/2015	JE1500311		15 OPIATE CONF. L. TORBERT	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	160	88	72
7	2016 Cash Disbursements (CUYAH 005984649)	5/16/2016	CK1602612	SALVATION ARMY	16 VIV PIL PRO 1/2016	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	100,000	58,035	41,965
8	2016 Cash Disbursements (CUYAH 005984649)	5/31/2016	CK1602839	ST VINCENT CHARITY MEDICAL CENTER	16 SUB PHA VIS 4/2016	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	143	83	60
9	2016 Cash Disbursements (CUYAH 005984649)	5/31/2016	CK1602839	ST VINCENT CHARITY MEDICAL CENTER	16 SUB PHY VIS 4/2016	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	425	247	178
10	2016 Cash Disbursements (CUYAH 005984649)	10/17/2016	CK1605144	ST VINCENT CHARITY MEDICAL CENTER	16 SUB PRO 9/2016	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	1,028	597	432
11	2016 Cash Disbursements (CUYAH 005984649)	11/14/2016	CK1605607	ST VINCENT CHARITY MEDICAL CENTER	SUBOXONE-PHARMACY-10/16	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	793	460	333
12	2016 Cash Disbursements (CUYAH 005984649)	11/17/2016	CK1605681	COMMUNITY ACTION AGAINST ADDICTION	MAT-SUBOXONE PROGRAM-03/16	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	570	331	239
13	2016 Cash Disbursements (CUYAH 005984649)	11/17/2016	CK1605681	COMMUNITY ACTION AGAINST ADDICTION	MAT-SUBOXONE PROGRAM-04/16	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	573	332	240
14	2016 Cash Disbursements (CUYAH 005984649)	11/17/2016	CK1605681	COMMUNITY ACTION AGAINST ADDICTION	MAT-SUBOXONE PROGRAM-05/16	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	570	331	239
15	2016 Cash Disbursements (CUYAH 005984649)	11/17/2016	CK1605681	COMMUNITY ACTION AGAINST ADDICTION	MAT-SUBOXONE PROGRAM-06/16	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	3,580	2,078	1,502
16	2016 Cash Disbursements (CUYAH 005984649)	11/17/2016	CK1605681	COMMUNITY ACTION AGAINST ADDICTION	MAT-SUBOXONE PROGRAM-07/16	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	4,235	2,458	1,777
17	2016 Cash Disbursements (CUYAH 005984649)	11/17/2016	CK1605681	COMMUNITY ACTION AGAINST ADDICTION	MAT-SUBOXONE PROGRAM-08/16	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	4,368	2,535	1,833
18	2016 Cash Disbursements (CUYAH 005984649)	11/17/2016	CK1605681	COMMUNITY ACTION AGAINST ADDICTION	MAT-SUBOXONE PROGRAM-09/16	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	4,214	2,446	1,768
19	2016 Cash Disbursements (CUYAH 005984649)	12/15/2016	CK1606445	ST VINCENT CHARITY MEDICAL CENTER	16 SUB DOC 11/2016	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	935	543	392
20	2016 Cash Disbursements (CUYAH 005984649)	12/15/2016	CK1606446	ST VINCENT CHARITY MEDICAL CENTER	16 SUB PHA 11/2016	20A SR-HLTH & COMM SERV	317 ADAMHSBCC (AS OF 07/01/2009)	-	-	-	727	422	305
21	2017 Cash Disbursements (CUYAH 005984651)	1/23/2017	CK1700274	ST VINCENT CHARITY MEDICAL CENTER	16 SUB DOC 12/2016	20ASR-HLTH&COMMSERV	317ADAMHSBCC(ASOF07/01/2009)	-	-	-	1,020	571	449
22	2017 Cash Disbursements (CUYAH 005984651)	1/23/2017	CK1700274	ST VINCENT CHARITY MEDICAL CENTER	16 SUB PHA 12/2016	20ASR-HLTH&COMMSERV	317ADAMHSBCC(ASOF07/01/2009)	-	-	-	574	321	253
23	2017 Cash Disbursements (CUYAH 005984651)	2/13/2017	CK1700663	THE SALVATION ARMY-	16 VIV PIL 12/2016	20ASR-HLTH&COMMSERV	317ADAMHSBCCCASOF07/01/2009)	-	-	-	24,566	13,747	10,819
24	2017 Cash Disbursements (CUYAH 005984651)	3/2/2017	CK1700974	ST VINCENT CHARITY MEDICAL CENTER	16 SUB PHA 5/2016	20ASR-HLTH&COMMSERV	317ADAMHSBCC(ASOF07/01/2009)	-	-	-	726	406	320
25	2017 Cash Disbursements (CUYAH 005984651)	4/20/2017	CK1701827	ST VINCENT CHARITY MEDICAL CENTER	SUBOXONE-DR. VISITS-03/17	20ASR-HLTH&COMMSERV	317ADAMHSBCCCASOF07/01/2009)	-	-	-	680	381	299
26	2017 Cash Disbursements (CUYAH 005984651)	4/20/2017	CK1701827	ST VINCENT CHARITY MEDICAL CENTER	SUBOXONE-PHARMACY-03/17	20ASR-HLTH&COMMSERV	317ADAMHSBCCCASOF07/01/2009)	-	-	-	429	240	189
27	2017 Cash Disbursements (CUYAH 005984651)	12/11/2017	CK1706112	THE SALVATION ARMY-	17 VIV PRO 12/2017	20ASR-HLTH&COMMSERV	317ADAMHSBCCCASOF07/01/2009)	-	-	-	100,000	55,958	44,042
Subtotal - ADAMHS Board								\$ -	\$ -	\$ -	\$ 346,209	\$ 213,758	\$ 132,451
Sheriff's Department													
28	2013 Cash Disbursements (CUYAH 005973358)	1/31/2013	CK1300489	NATIONAL ASSOCIATIN OF DRUG DIVERSI	INV15667DROP BIX	01A GENERAL FUND	001 GENERAL FUND	\$ 800	\$ -	\$ 800	\$ -	\$ -	\$ -
29	2015 Cash Disbursements (CUYAH 005984095)	1/15/2015	CK1500236	NATIONAL ASSOCIATIN OF DRUG DIVERSI	10 RX DRUG DROP BOXES -INV 21554	01A GENERAL FUND	001 GENERAL FUND	7,100	-	7,100	-	-	-
Subtotal - Sheriff's Department								\$ 7,900	\$ -	\$ 7,900	\$ -	\$ -	\$ -

Appendix 4.1
Cuyahoga County
Direct Costs - Cash Disbursement Detail

								[A]	[B]	[C] = [A] - [B]	[D]	[E]	[F] = [D] - [E]				
Item No.	Document Reference	Posted Date	Document Type	Vendor Name	Description	Fund	Sub-Fund	Prescription			General						
								Identified Opioid Cost	Cost Paid by Grant(s) / Non-County Funds	Maximum Direct Cost	Identified Opioid Cost	Cost Paid by Grant(s) / Non-County Funds	Maximum Direct Cost				
Division Not Known																	
30	2012 Cash Disbursements (CUYAH 005968204)	5/31/2012	CK1203174	MARY L BARTKUS	HOTEL/MEALS BARTKUS OPIAT SUMMIT 5/7-8/2012	20A SR-HLTH & COMM SERV	099 TASC MEDICAID FUNDS(CO)	\$	-	\$	-	\$	218	\$	-	\$	218
31	2012 Cash Disbursements (CUYAH 005968204)	6/7/2012	CK1203270	DARIUSZ W DOLUB	HOTEL & MEALS -DOLUB-OPIATE SUMMIT 5/7-8/2012	20A SR-HLTH & COMM SERV	099 TASC MEDICAID FUNDS(CO)	-	-	-	-	176	-	-	-	176	
32	2012 Cash Disbursements (CUYAH 005968204)	6/7/2012	CK1203270	JOANNE ADAMO	HOTEL & MEALS-ADAMO-OPIATE SUMMIT	20A SR-HLTH & COMM SERV	099 TASC MEDICAID FUNDS(CO)	-	-	-	-	137	-	-	-	137	
33	2012 Cash Disbursements (CUYAH 005968204)	6/7/2012	CK1203270	SARAH MCGUIRE	MCGUIRE-OPIATE SUMMIT-HOTEL,MEALS 5/7-8/2012	20A SR-HLTH & COMM SERV	099 TASC MEDICAID FUNDS(CO)	-	-	-	-	209	-	-	-	209	
34	2012 Cash Disbursements (CUYAH 005968204)	6/7/2012	CK1203259	OACBHA FOUNDATION	INV 60 MCGUIRE OPIATE EPIDEMIC ITS IMPACT	20A SR-HLTH & COMM SERV	099 TASC MEDICAID FUNDS(CO)	-	-	-	-	150	-	-	-	150	
35	2012 Cash Disbursements (CUYAH 005968204)	6/11/2012	CK1203338	MARIA NEMEC	NEMEC-OPIATE SUMMIT	20A SR-HLTH & COMM SERV	192 TASC HHS	-	-	-	-	360	-	-	-	360	
36	2012 Cash Disbursements (CUYAH 005968204)	6/18/2012	CK1203500	LORETTA RYLAND	RYLAND-OPIATE SUMMIT	20A SR-HLTH & COMM SERV	377 PROBATION SUPERVISION FEES	-	-	-	-	209	-	-	-	209	
37	2012 Cash Disbursements (CUYAH 005968204)	6/25/2012	CK1203632	DARLENE LOUTH	LOUTH - OPIATE SUMMIT	20A SR-HLTH & COMM SERV	377 PROBATION SUPERVISION FEES	-	-	-	-	340	-	-	-	340	
38	2012 Cash Disbursements (CUYAH 005968204)	7/26/2012	CK1204174	TRANSMETRON	TESTS 5 PANEL 12 PANEL SPICE K2 SUBOXONE CUPS	20A SR-HLTH & COMM SERV	099 TASC MEDICAID FUNDS(CO)	-	-	-	-	1,585	-	-	-	1,585	
39	2012 Cash Disbursements (CUYAH 005968204)	9/24/2012	CK1205323	CUYAHOGA COUNTY BOARD OF HEALTH	2012 OPIATE CONF REG FEE	24A PUBLIC ASSISTANCE FUNDS	878 HHS- OFFICE OF REENTRY	-	-	-	-	75	-	-	-	75	
40	2012 Cash Disbursements (CUYAH 005968204)	10/29/2012	CK1205966	CUYAHOGA COUNTY	OPIATE EPIDEMIC 9/28/12 REG 4	20A SR-HLTH & COMM SERV	377 PROBATION SUPERVISION FEES	-	-	-	-	300	-	-	-	300	
41	2013 Cash Disbursements (CUYAH 005973358)	6/6/2013	CK1303027	OACBHA FOUNDATION	COLLINS KRUGER COAKLEY REG FEE OPIATE SUMMIT 2013	20A SR-HLTH & COMM SERV	377 PROBATION SUPERVISION FEES	-	-	-	-	400	-	-	-	400	
42	2013 Cash Disbursements (CUYAH 005973358)	6/6/2013	CK1303039	ANGELA D COLLINS	COLLINS OPIATE CONFERENCE APR 2013	20A SR-HLTH & COMM SERV	377 PROBATION SUPERVISION FEES	-	-	-	-	307	-	-	-	307	
43	2013 Cash Disbursements (CUYAH 005973358)	6/6/2013	CK1303039	MOLLY KRUEGER	KRUEGER OHIO OPIATE CONF APR 2013	20A SR-HLTH & COMM SERV	377 PROBATION SUPERVISION FEES	-	-	-	-	280	-	-	-	280	
44	2013 Cash Disbursements (CUYAH 005973358)	7/8/2013	CK1303644	LUIS VAZQUEZ	OPIATE CONF COLUMBUS OH 4/29-30/13	24A PUBLIC ASSISTANCE FUNDS	878 HHS- OFFICE OF REENTRY	-	-	-	-	548	-	-	-	548	
45	2013 Cash Disbursements (CUYAH 005973358)	7/30/2013	PR1300908		DRUG DROP FLYER	01A GENERAL FUND	001 GENERAL FUND	455	-	455	-	-	-	-	-	-	
46	2013 Cash Disbursements (CUYAH 005973358)	10/8/2013	PR1301591		RX DRUP DROP OFF FLYER	01A GENERAL FUND	001 GENERAL FUND	199	-	199	-	-	-	-	-	-	
47	2013 Cash Disbursements (CUYAH 005973358)	11/8/2013	PR1301518		DRUG DROP BOX FLYER	01A GENERAL FUND	001 GENERAL FUND	337	-	337	-	-	-	-	-	-	
48	2013 Cash Disbursements (CUYAH 005973358)	12/6/2013	PR1301947		DRUG DROP PROGRAM POSTER	01A GENERAL FUND	001 GENERAL FUND	77	-	77	-	-	-	-	-	-	
49	2013 Cash Disbursements (CUYAH 005973358)	12/6/2013	PR1301950		DRUG DROP BOX FLYER	01A GENERAL FUND	001 GENERAL FUND	603	-	603	-	-	-	-	-	-	
50	2013 Cash Disbursements (CUYAH 005973358)	12/6/2013	PR1301976		DRUG DROP BOX PROGRAM	01A GENERAL FUND	001 GENERAL FUND	303	-	303	-	-	-	-	-	-	
51	2014 Cash Disbursements (CUYAH 005978560)	2/10/2014	PR1301911		DRUG DROP BOX FLYER	01A GENERAL FUND	001 GENERAL FUND	1,978	-	1,978	-	-	-	-	-	-	
52	2014 Cash Disbursements (CUYAH 005978560)	3/13/2014	PR1400307		DRUP DROP BOX FLYER	01A GENERAL FUND	001 GENERAL FUND	948	-	948	-	-	-	-	-	-	
53	2014 Cash Disbursements (CUYAH 005978560)	3/13/2014	PR1400308		DRUG DROP BOX FLYER	01A GENERAL FUND	001 GENERAL FUND	79	-	79	-	-	-	-	-	-	
54	2014 Cash Disbursements (CUYAH 005978560)	4/4/2014	PR1400607		DRUG DROP BOX FLYER	01A GENERAL FUND	001 GENERAL FUND	191	-	191	-	-	-	-	-	-	
55	2014 Cash Disbursements (CUYAH 005978560)	4/30/2014	PR1400788		DRUG DROP BOX FLYER	01A GENERAL FUND	001 GENERAL FUND	315	-	315	-	-	-	-	-	-	
56	2014 Cash Disbursements (CUYAH 005978560)	7/14/2014	CK1403814	JOHN J RUSSO	OPIATE SYMPOSIUM 6/29 6/30/14	01A GENERAL FUND	001 GENERAL FUND	-	-	-	-	164	-	-	-	164	
57	2014 Cash Disbursements (CUYAH 005978560)	8/1/2014	CK1404137	ALLISYN B LEPLLA	OPIATE SUMMIT 6/29-7/1/14	21N CATEGORICAL GRANTS-NOT IN CAFR	567 INJURY PREVENTION	-	-	-	-	149	149	-	-	-	
58	2014 Cash Disbursements (CUYAH 005978560)	8/1/2014	CK1404137	ALLISYN B LEPLLA	OPIATE SUMMIT 6/29-7/1/14	21N CATEGORICAL GRANTS-NOT IN CAFR	567 INJURY PREVENTION	-	-	-	-	120	120	-	-	-	
59	2014 Cash Disbursements (CUYAH 005978560)	11/24/2014	PR1401907		MEDICATION ADMINISTRATION RECORD - OPIATE PROTOCOL	01A GENERAL FUND	001 GENERAL FUND	-	-	-	-	327	-	-	-	327	
60	2015 Cash Disbursements (CUYAH 005984095)	3/16/2015	PR1500120		HEROIN SUMMIT FLYER	01A GENERAL FUND	001 GENERAL FUND	-	-	-	-	828	-	-	-	828	
61	2015 Cash Disbursements (CUYAH 005984095)	3/16/2015	PR1500232		HEROIN FLYER	01A GENERAL FUND	001 GENERAL FUND	-	-	-	-	179	-	-	-	179	
62	2015 Cash Disbursements (CUYAH 005984095)	4/16/2015	CK1502144	OACBHA FOUNDATION	INV E2719 DOLUB TRAINING OPIATES 3/30-31/15	20A SR-HLTH & COMM SERV	192 TASC HHS	-	-	-	-	160	-	-	-	160	

Appendix 4.1
Cuyahoga County
Direct Costs - Cash Disbursement Detail

Item No.	Document Reference	Posted Date	Document Type	Vendor Name	Description	Fund	Sub-Fund	[A] [B] [C] = [A] - [B]			[D] [E] [F] = [D] - [E]		
								Identified Opioid Cost	Prescription Cost Paid by Grant(s) / Non-County Funds	Maximum Direct Cost	Identified Opioid Cost	Cost Paid by Grant(s) / Non-County Funds	Maximum Direct Cost
63	2015 Cash Disbursements (CUYAH 005984095)	4/23/2015	PR1500589		DRUG DROP BOX FLYER	01A GENERAL FUND	001 GENERAL FUND	-	-	-	172	-	172
64	2015 Cash Disbursements (CUYAH 005984095)	4/23/2015	CK1502274	BRIAN J THELEN	OCCA OPIATED B THELAN	20A SR-HLTH & COMM SERV	377 PROBATION SUPERVISION FEES	-	-	-	400	-	400
65	2015 Cash Disbursements (CUYAH 005984095)	4/23/2015	CK1502274	RITAMARIE K WHITE	OCCA OPIATE R WHITE	20A SR-HLTH & COMM SERV	377 PROBATION SUPERVISION FEES	-	-	-	169	-	169
66	2015 Cash Disbursements (CUYAH 005984095)	4/23/2015	CK1502274	JOHN BRENDAN COAKLEY	OCCA OPIATES J COAKLEY	20A SR-HLTH & COMM SERV	377 PROBATION SUPERVISION FEES	-	-	-	383	-	383
67	2015 Cash Disbursements (CUYAH 005984095)	4/23/2015	CK1502275	CARLY M SCIGLIANO	OCCA OPIATES S SCIGLIANO	20A SR-HLTH & COMM SERV	377 PROBATION SUPERVISION FEES	-	-	-	429	-	429
68	2015 Cash Disbursements (CUYAH 005984095)	5/4/2015	CK1502458	VINCENT P CARAFFI	OPIATE CONF 3/30-3/31/15	21N CATEGORICAL GRANTS-NOT IN CAFR	567 INJURY PREVENTION	-	-	-	145	145	-
69	2015 Cash Disbursements (CUYAH 005984095)	5/4/2015	CK1502459	ALLISYN B LEPPLA	OPATE CONF 3/30-3/31/15	21N CATEGORICAL GRANTS-NOT IN CAFR	567 INJURY PREVENTION	-	-	-	150	150	-
70	2015 Cash Disbursements (CUYAH 005984095)	5/18/2015	PR1510866		DRUG DROP BOX FLYER	01A GENERAL FUND	001 GENERAL FUND	-	-	-	102	-	102
71	2015 Cash Disbursements (CUYAH 005984095)	9/10/2015	CK1504753	ALLISYN B LEPPLA	HERION ACTION AND OIPP MTG 8/7/15	21N CATEGORICAL GRANTS-NOT IN CAFR	567 INJURY PREVENTION	-	-	-	166	166	-
72	2015 Cash Disbursements (CUYAH 005984095)	12/3/2015	CK1506419	METROHEALTH MEDICAL CENTER	PROJECT DAWN SERV	21N CATEGORICAL GRANTS-NOT IN CAFR	567 INJURY PREVENTION	-	-	-	3,249	3,249	-
73	2015 Cash Disbursements (CUYAH 005984095)	12/17/2015	CK1506786	PATRICK J LAVELLE	Duty-related travel: Response to Heroin Scene A1	01A GENERAL FUND	001 GENERAL FUND	-	-	-	23	-	23
74	2015 Cash Disbursements (CUYAH 005984095)	12/17/2015	CK1506786	PATRICK J LAVELLE	Duty-related travel: Response to Heroin Scene A1	01A GENERAL FUND	001 GENERAL FUND	-	-	-	41	-	41
75	2015 Cash Disbursements (CUYAH 005984095)	12/17/2015	CK1506786	PATRICK J LAVELLE	Duty-related travel: Response to Heroin Scene A1	01A GENERAL FUND	001 GENERAL FUND	-	-	-	63	-	63
76	2016 Cash Disbursements (CUYAH 005984649)	4/25/2016	CK1602265	ALLISYN B LEPPLA	HEROIN SUMMIT 3/28-3/30/16	21N CATEGORICAL GRANTS-NOT IN CAFR	567 INJURY PREVENTION	-	-	-	385	385	-
77	2016 Cash Disbursements (CUYAH 005984649)	5/16/2016	CK1602598	DUANE DESKINS	Duty-related expense: Parking 05.02.2016 - Opiate	01A GENERAL FUND	001 GENERAL FUND	-	-	-	10	-	10
78	2016 Cash Disbursements (CUYAH 005984649)	5/19/2016	CK1602657	NANCY G MCMILLEN	*2016 OPIATE CONFERENCE*	01A GENERAL FUND	001 GENERAL FUND	-	-	-	380	-	380
79	2016 Cash Disbursements (CUYAH 005984649)	5/19/2016	CK1602661	MARIA NEMEC	M NEMEC-OPIATE CONF-MAY 2016	20A SR-HLTH & COMM SERV	377 PROBATION SUPERVISION FEES	-	-	-	564	-	564
80	2016 Cash Disbursements (CUYAH 005984649)	5/19/2016	CK1602661	LORETTA RYLAND	RYLAND OPIATE CONF	21A CATEGORICAL GRANTS-OTHER	034 SMART OHIO PILOT	-	-	-	536	536	-
81	2016 Cash Disbursements (CUYAH 005984649)	5/26/2016	CK1602777	VINCENT P CARAFFI	OPIATE CONF 5/2-5/3/16	21N CATEGORICAL GRANTS-NOT IN CAFR	567 INJURY PREVENTION	-	-	-	142	142	-
82	2016 Cash Disbursements (CUYAH 005984649)	5/26/2016	CK1602777	VINCENT P CARAFFI	OPIATE CONF 5/2-5/3/16	21N CATEGORICAL GRANTS-NOT IN CAFR	567 INJURY PREVENTION	-	-	-	230	230	-
83	2016 Cash Disbursements (CUYAH 005984649)	5/26/2016	CK1602771	PATRICK M SHEPARD	P SHEPARD -OPIATE CONF	20A SR-HLTH & COMM SERV	377 PROBATION SUPERVISION FEES	-	-	-	606	-	606
84	2016 Cash Disbursements (CUYAH 005984649)	5/26/2016	CK1602771	HILARY A SCHLETER	H SCHLETER-OPIATE TRAINING	20A SR-HLTH & COMM SERV	377 PROBATION SUPERVISION FEES	-	-	-	578	-	578
85	2016 Cash Disbursements (CUYAH 005984649)	5/31/2016	CK1602824	MARTIN P MURPHY	MURPHY OPIATE CONF	20A SR-HLTH & COMM SERV	192 TASC HHS	-	-	-	602	-	602
86	2016 Cash Disbursements (CUYAH 005984649)	6/23/2016	CK1603236	MOLLY M LECKLER	M LECKLER- OPIATE CONF	20A SR-HLTH & COMM SERV	377 PROBATION SUPERVISION FEES	-	-	-	213	-	213
87	2016 Cash Disbursements (CUYAH 005984649)	9/29/2016	CK1604790	METROHEALTH MEDICAL CENTER	1-6/16 FRINGE/PROJECT DAWN	21N CATEGORICAL GRANTS-NOT IN CAFR	567 INJURY PREVENTION	-	-	-	3,304	3,304	-
88	2016 Cash Disbursements (CUYAH 005984649)	10/6/2016	CK1604973	PETER J BABULA	*2424* WEB HOSTING SOFTWARE RE LETS FACE HEROIN	01A GENERAL FUND	001 GENERAL FUND	-	-	-	90	-	90
89	2016 Cash Disbursements (CUYAH 005984649)	11/17/2016	CK1605663	PATRICK J LAVELLE	Duty-related expenses: Travel 10.04.2016 YOpod	01A GENERAL FUND	001 GENERAL FUND	-	-	-	13	-	13
90	2017 Cash Disbursements (CUYAH 005984651)	1/12/2017	CK1700107	PETER J BABULA	*2473* WEB HOSTING FEE LETS FACE HEROIN COM INITIA	01AGENERALFUND	001GENERALFUND	-	-	-	90	-	90
91	2017 Cash Disbursements (CUYAH 005984651)	1/23/2017	CK1700252	HEISEL AND ASSOCIATES	HERCIK 2 WORKSHOPS-OPIOID & ETHICS/SUPERVISION	20ASR-HLTH&COMMSERV	192TASCHHS	-	-	-	198	-	198
92	2017 Cash Disbursements (CUYAH 005984651)	2/28/2017	CK1700927	HEISEL AND ASSOCIATES	INV 855, OPIATE EPIDEMIC 3/30 AND ETHICS & SUPERVIS	20ASR-HLTH&COMMSERV	192TASCHHS	-	-	-	198	-	198
93	2017 Cash Disbursements (CUYAH 005984651)	4/13/2017	CK1701669	PETER J BABULA	*2508* WB HOSTING FEE,Q2 2017- LETS FACE HEROIN.COM	01AGENERALFUND	001GENERALFUND	-	-	-	90	-	90
94	2017 Cash Disbursements (CUYAH 005984651)	4/27/2017	CK1701902	LORAIN COUNTY HEALTH DISTRICT	NALOXONE TRAINING	21NCATEGORICALGRANTS-NOTINCAFR	567INJURYPREVENTION	-	-	-	1,332	1,332	-

Appendix 4.1
Cuyahoga County
Direct Costs - Cash Disbursement Detail

Item No.	Document Reference	Posted Date	Document Type	Vendor Name	Description	Fund	Sub-Fund	[A] [B] [C] = [A] - [B]			[D] [E] [F] = [D] - [E]		
								Identified Opioid Cost	Prescription Cost Paid by Grant(s) / Non-County Funds	Maximum Direct Cost	Identified Opioid Cost	Cost Paid by Grant(s) / Non-County Funds	Maximum Direct Cost
95	2017 Cash Disbursements (CUYAH_005984651)	5/18/2017	CK1702329	OACBHA FOUNDATION	OPIATE CONFERENCE IN COLUMBUS OHIO FOR 7 ATTENDEES.	21ACATEGORICALGRANTS-OTHER	034SMARTOHIPILOT	-	-	-	1,750	1,750	-
96	2017 Cash Disbursements (CUYAH_005984651)	6/8/2017	CK1702687	VINCENT P CARAFFI	OPIATE MTG 5/8/17	21NCATEGORICALGRANTS-NOTINCAFR	567INJURYPREVENTION	-	-	-	26	26	-
97	2017 Cash Disbursements (CUYAH_005984651)	7/3/2017	CK1703110	VINCENT P CARAFFI	OPIOID CONF 6/12-6/13/17	21NCATEGORICALGRANTS-NOTINCAFR	567INJURYPREVENTION	-	-	-	200	200	-
98	2017 Cash Disbursements (CUYAH_005984651)	7/3/2017	CK1703110	VINCENT P CARAFFI	OPIOID CONF 6/12-6/13/17	21NCATEGORICALGRANTS-NOTINCAFR	567INJURYPREVENTION	-	-	-	150	150	-
99	2017 Cash Disbursements (CUYAH_005984651)	7/10/2017	CK1703211	MARIA NEMEC	M. NEMEC OPIATE CONF JUN 2017	20ASR-HLTH&COMMSERV	377PROBATIONSUPERVISIONFEES	-	-	-	568	-	568
100	2017 Cash Disbursements (CUYAH_005984651)	7/10/2017	CK1703212	ALLISYN B LEPLA	OPIATE CONF 6/12-6/13/17	21NCATEGORICALGRANTS-NOTINCAFR	567INJURYPREVENTION	-	-	-	328	328	-
101	2017 Cash Disbursements (CUYAH_005984651)	7/10/2017	CK1703212	ALLISYN B LEPLA	OPIATE CONF 6/12-6/13/17	21NCATEGORICALGRANTS-NOTINCAFR	567INJURYPREVENTION	-	-	-	150	150	-
102	2017 Cash Disbursements (CUYAH_005984651)	7/27/2017	CK1703541	AMANDA L WOZNIAK	A WOZNIAK-OPIATE CONF-JUNE 2017	20ASR-HLTH&COMMSERV	377PROBATIONSUPERVISIONFEES	-	-	-	367	-	367
103	2017 Cash Disbursements (CUYAH_005984651)	7/27/2017	CK1703542	STEPHANIE G GILLIAMS	S GILLIAMS-OPIATE CONF-JUN 2017	20ASR-HLTH&COMMSERV	377PROBATIONSUPERVISIONFEES	-	-	-	488	-	488
104	2017 Cash Disbursements (CUYAH_005984651)	7/27/2017	CK1703542	JEREMY S PFEIFER	J PFEIFER-OPIATE CONF-JUN 2017	20ASR-HLTH&COMMSERV	377PROBATIONSUPERVISIONFEES	-	-	-	172	-	172
105	2017 Cash Disbursements (CUYAH_005984651)	8/8/2017	JA1700375		REALIGN 2017 OPIATE CONF EXP	21ACATEGORICALGRANTS-OTHER	034SMARTOHIPILOT	-	-	-	1,594	1,594	-
106	2017 Cash Disbursements (CUYAH_005984651)	8/21/2017	CK1703956	ALLISYN B LEPLA	HEROIN TASK FORCE MTG 8/4/17	21NCATEGORICALGRANTS-NOTINCAFR	567INJURYPREVENTION	-	-	-	10	10	-
107	2017 Cash Disbursements (CUYAH_005984651)	8/24/2017	JA1700435		ADJ COST FOR VIVITRAL PROG TO APPROP GRANT	21ACATEGORICALGRANTS-OTHER	513CCA407FELONYPROGRAM	-	-	-	100,000	100,000	-
108	2017 Cash Disbursements (CUYAH_005984651)	9/7/2017	CK1704236	GREATER CLEVE SAFETY	*912017* THE OPIOID EPIDEMIC AND THE EFFECTS OF	67ASELFFUNDEDWORKERSCOMP	100	-	-	-	44	-	44
109	2017 Cash Disbursements (CUYAH_005984651)	9/7/2017	CK1704236	GREATER CLEVE SAFETY	*9172017* THE OPIOID EPIDEMIC AND EFFECTS OF USE	67ASELFFUNDEDWORKERSCOMP	100	-	-	-	22	-	22
110	2017 Cash Disbursements (CUYAH_005984651)	9/11/2017	CK1704290	CLEVELAND LAW LIBRARY ASSOCIATION	INTERLIBRARY LOAN CHARGE ON 8-21-17 METHADONE SUBS	01AGENERALFUND	001GENERALFUND	-	-	-	20	-	20
Subtotal - Division Not Known								\$ 5,485	\$ -	\$ 5,485	\$ 128,164	\$ 114,116	\$ 14,047

Notes:

1. "Identified Opioid Cost" represents the actual/estimated amount of a specific cost relating to opioid abuse.
2. "Prescription" represents the actual/estimated amount of the opioid abuse ("Identified Opioid Cost") relating to prescription opioid abuse.
3. "General" represents the actual/estimated amount of the opioid abuse ("Identified Opioid Cost") relating to general opioid abuse.
4. "Cost Paid by Grant(s) / Non-County Funds" represents the amount of the opioid cost paid through grants or other non-county sources. For ADAMHS Board, "Cost Paid by Grant(s) / Non-County Funds" is estimated as the "Identified Opioid Cost" × the non-county funding percentage for AoD services for the identified year. The non-county funding percentage prior to 2014 and after 2017 is not available. Therefore, for purposes of my analysis, I have assumed the non-county funding percentage for years prior to 2014 is equal to 2014 and for years after 2017 is equal to 2017. See Schedule 4.2 for further detail.
5. At this time I have not analyzed Children and Family Services. Pursuant to the Court's recent rulings, I will supplement my report to include an analysis of Children and Family Services upon receipt of the underlying case files from Plaintiffs.

HIGHLY CONFIDENTIAL

Appendix 5

Appendix 5
Summit County
Direct Costs

				[A]	[B]	[C] = [A] - [B]	[D]	[E]	[F] = [D] - [E]		
Item No.	Document Reference	Period	Cost Description	Prescription			General			Notes	
				Identified Opioid Cost	Cost Paid by Grant(s) / Non-Local Funds	Maximum Direct Cost	Identified Opioid Cost	Cost Paid by Grant(s) / Non-Local Funds	Maximum Direct Cost		
Alcohol, Drug Addiction & Mental Health Services ("ADM") Board											
1	(30)(b)(6) deposition of Brian Nelsen dated January 24, 2019, Exhibit 2 (SUMMIT_001084232 at SUMMIT_001084233)	2014-2016	Addiction Treatment & Support Capacity Expansion (includes Medication Assisted Treatment pilot programs, start up for Recovery Housing programs, Ambulatory Detox program expansion, as well as Intensive Outpatient program expansion) • 2014: \$16,302 (Federal) \$526,476 (Local) • 2015: 640,167 (Local) • 2016: 13,563 (Local) • Total: \$16,302 (Federal) \$1,180,206 (Local)	\$ -	\$ -	\$ -	\$ 1,196,508	\$ 16,302	\$ 1,180,206		
2	Summit County Banner Accounting System (SUMMIT_002054603)	2014-2018	Fund: 20704 (Alcohol, Drug, & Mental Health) / Orgn: 5335 Expense account #47211 entitled "Opiate Task Force" • 2014: \$1,911 • 2015: 34,548 • 2016: 12,609 • 2017: 31,116 • 2018: 42,094 • Total \$122,279	-	-	-	122,279	-	122,279	• "Direct Cost (General)" also referenced at (30)(b)(6) deposition of Brian Nelsen dated January 24, 2019, Exhibit 2.	
3	(30)(b)(6) deposition of Brian Nelsen dated January 24, 2019, Exhibit 2 (SUMMIT_001084232 at SUMMIT_001084233)	2015-2016	DAWN Clinics • Federal & State Funding: \$85,980 (2015) • Local Funding: \$85,980 (2016)	-	-	-	171,960	85,980	85,980		
4	Summit County Banner Accounting System (SUMMIT_002054603)	2016-2018	Fund: 20704 / Orgn: 5335 (Alcohol, Drug, & Mental Health) Expense account #47220 entitled "ATP Services." • 2016: \$105,060 • 2017: 90,077 • 2018: 603,529 Total \$798,666	-	-	-	798,666	798,666	-	• ATP (Addiction Treatment Program) and grant funding from OHMAS also referenced at pp. 107:12-111:14 of the Kimberly Patton Deposition, dated January 22, 2019 and the 2018 ADM Annual Budget Review (SUMMIT_001085282 at SUMMIT_001085323).	
5	Summit County Banner Accounting System (SUMMIT_002054603)	2015-2018	Fund: 20704 / Orgn: 5335 (Alcohol, Drug, & Mental Health) Expense account #47212 entitled "Recovery Housing - Addiction." • 2015: \$96,200 • 2017: 45,387 • 2018: 470,541 • Total \$612,128	-	-	-	612,128	-	612,128	• Program discussed at p. 102:1-18 and 104:13-105:10 of the Kimberly Patton Deposition, dated January 22, 2019. • "Recovery Housing - Addiction" expense account has one entry in 2015 prior to ADM contracting directly with recovery housing providers in 2017. This amount recorded in 2015 has been included to be conservative.	
6	Summit County Banner Accounting System (SUMMIT_002054603)	2017-2018	Fund: 20704 / Orgn: 5335 (Alcohol, Drug, & Mental Health) Expense account #47225 entitled "Opioid Abatement Strategies." • 2017: \$2,444,638 • 2018 YTD: 2,632,918 • Total \$5,077,556	-	-	-	5,077,556	-	5,077,556	• See SUMMIT_002079461 for an example of an invoice paid from the expense account; indicates the funds came from the local fund levy account ("Direct Cost"). • The reserve funds were used to expand treatment, education and prevention activities. See (30)(b)(6) deposition of Brian Nelsen dated January 24, 2019, pp. 111:17-112:9 for further detail. • Cost also referenced in the "Report on Opiate Epidemic Impact" (SUMMIT_002053751).	
7	Summit County Banner Accounting System (SUMMIT_002054603)	2017-2018	Fund: 20704 / Orgn: 5335 (Alcohol, Drug, & Mental Health) Expense account #47221 entitled "CURES Act." • Additional beds and other opiate-related initiatives.	-	-	-	643,767	643,767	-	• "Cost Paid by Grant(s) / Non-Local Funds" includes the Cures Act grant aimed at addressing the opioid crisis. Cures Act funding through ADM Annual Budget Review (SUMMIT_001085282 at SUMMIT_001085384). • See the Summit County Opiate Task Force Meeting Notes (SUMMIT_001085386) and "Report on Opiate Epidemic Impact" (SUMMIT_002053751) for further detail of the funding.	
Subtotal - ADM Board				\$ -	\$ -	\$ -	\$ 8,622,864	\$ 1,544,716	\$ 7,078,148		

Appendix 5
Summit County
Direct Costs

			[A]	[B]	[C] = [A] - [B]	[D]	[E]	[F] = [D] - [E]		
Item No.	Document Reference	Period	Cost Description	Prescription			General			Notes
				Identified Opioid Cost	Cost Paid by Grant(s) / Non-Local Funds	Maximum Direct Cost	Identified Opioid Cost	Cost Paid by Grant(s) / Non-Local Funds	Maximum Direct Cost	
Sheriff's Office										
8	Subgrant Award Agreement, Ohio Drug Law Enforcement Application 2012 (Dept. of Public Safety 1748 at pp. 1771 to 1793)	2/1/13-1/31/14	Drug Law Enforcement Subgrant received by Summit County Drug Unit for: • Personnel: \$152,061 • Consultant/Contracts: 6,940 • Equipment: 64,712 • Supplies: 3,960 • Other Costs <u>105,661</u> • Total: \$333,333	\$ 333,333	\$ 250,000	\$ 83,333	\$ -	\$ -	\$ -	• See pp. 1771-1793 for more information regarding the Ohio Drug Law Enforcement Application 2012. • See p. 1793 for the Budget Request By Resource & Cost Category for the Ohio Drug Law Enforcement Application 2012 for Summit County Drug Unit. • See p. 1771 for the Subgrant Award Agreement between Ohio Office of Criminal Justice Services, County of Summit, and Summit County Sheriff's Office (the Implementing Agency). • See p. 1777 for the Drug Unit Project Objective (Prescription Opioids). • "Cost Paid by Grant(s) / Non-Local Funds" includes a \$250,000 grant from the Ohio Office of Criminal Justice Services (see p. 1771). • "Direct Cost (Prescription)" includes \$83,333 Cash Match from Summit County Sheriff's Office (see p. 1771).
9	Subgrant Award Agreement, Ohio Drug Law Enforcement Application 2013 (Dept. of Public Safety 1956 at pp. 2050 to 2072)	2/1/14-1/31/15	Drug Law Enforcement Subgrant received by Summit County Drug Unit for: • Personnel: \$199,522 • Consultant/Contracts: 6,940 • Equipment: 8,671 • Supplies: 3,000 • Other Costs <u>115,200</u> • Total: \$333,333	333,333	250,000	83,333	-	-	-	• See pp. 2050-2072 for more information regarding the Ohio Drug Law Enforcement Application 2013. • See p. 2072 for the Budget Request By Resource & Cost Category for the Ohio Drug Law Enforcement Application 2013 for Summit County Drug Unit. • See p. 2050 for the Subgrant Award Agreement between Ohio Office of Criminal Justice Services, County of Summit, and Summit County Sheriff's Office (the Implementing Agency). • See p. 2056 for the Drug Unit Project Objective (Prescription Opioids). • "Cost Paid by Grant(s) / Non-Local Funds" includes a \$250,000 from the Ohio Office of Criminal Justice Services (see p. 2050). • "Direct Cost (Prescription)" includes \$83,333 Cash Match from Summit County Sheriff's Office (see p. 2050). • Cost also referenced at SUMMIT_001423752.
10	Subgrant Award Agreement, Ohio Drug Law Enforcement Application 2014 (Dept. of Public Safety 2233 at pp. 2256 to 2278)	6/30/15-6/30/16	Drug Law Enforcement Subgrant received by Summit County Drug Unit for: • Personnel: \$204,679 • Consultant/Contracts: 18,940 • Supplies: 3,347 • Other Costs <u>106,367</u> • Total: \$333,333	-	-	-	333,333	250,000	83,333	• See pp. 2256-278 for more information regarding the Ohio Drug Law Enforcement Application 2014. • See p. 2278 for the Budget Request By Resource & Cost Category for the Ohio Drug Law Enforcement Application 2014 for Summit County Drug Unit. • See p. 2256 for the Subgrant Award Agreement between Ohio Office of Criminal Justice Services, County of Summit, and Summit County Sheriff's Office (the Implementing Agency). • See p. 2262 for the Drug Unit Project Objective (Heroin). • "Cost Paid by Grant(s) / Non-Local Funds" includes a \$250,000 from the Ohio Office of Criminal Justice Services (see p. 2256). • "Direct Cost (General)" includes \$83,333 Cash Match from Summit County (see p. 2256). • Cost also referenced at SUMMIT_000017769.
11	Subgrant Award Agreement, Ohio Drug Law Enforcement Application 2015 (Dept. of Public Safety 2436 at pp. 2484 to 2509)	7/1/16-6/30/17	Drug Law Enforcement Subgrant received by Summit County Drug Unit for: • Personnel: \$215,750 • Consultant/Contracts: 6,940 • Equipment: 10,514 • Supplies: 3,000 • Other Costs <u>97,130</u> • Total: \$333,333	-	-	-	333,333	250,000	83,333	• See pp. 2484-2509 for more information regarding the Ohio Drug Law Enforcement Application 2015. • See p. 2509 for the Budget Request By Resource & Cost Category for the Ohio Drug Law Enforcement Application 2015 for Summit County Drug Unit. • See p. 2484 for the Subgrant Award Agreement between Ohio Office of Criminal Justice Services, County of Summit, and Summit County Sheriff's Office (the Implementing Agency). • See p. 2487 for the Drug Unit #1 Problem Statement (Heroin and Fentanyl). • "Cost Paid by Grant(s) / Non-Local Funds" includes a \$250,000 from the Ohio Office of Criminal Justice Services (see p. 2484). • "Direct Cost (General)" includes \$83,333 Cash Match from Summit County (see p. 2484).
12	Subgrant Award Agreement, Ohio Drug Law Enforcement Application 2016 (Dept. of Public Safety 2623 at pp. 2694 to 2724)	7/1/17-6/30/18	Drug Law Enforcement Subgrant received by Summit County Drug Unit for: • Personnel: \$216,731 • Equipment: 8,900 • Supplies: 3,633 • Other Costs <u>104,070</u> • Total: \$333,333	-	-	-	333,333	250,000	83,333	• See pp. 2694-2721 for more information regarding the Ohio Drug Law Enforcement Application 2016. • See p. 2719 for the Budget Request By Resource & Cost Category for the Ohio Drug Law Enforcement Application 2015 for Summit County Drug Unit. • See p. 2720 for the Subgrant Award Agreement between Ohio Office of Criminal Justice Services, County of Summit, and Summit County Sheriff's Office (the Implementing Agency). • See p. 2696 for the Drug Unit #1 Problem Statement (Heroin and Fentanyl). • "Cost Paid by Grant(s) / Non-Local Funds" includes a \$250,000 from the Ohio Office of Criminal Justice Services (see p. 2720). • "Direct Cost (General)" includes \$83,333 Cash Match from Summit County (see p. 2720).

Appendix 5
Summit County
Direct Costs

				[A]	[B]	[C] = [A] - [B]	[D]	[E]	[F] = [D] - [E]	
Item No.	Document Reference	Period	Cost Description	Prescription			General			Notes
				Identified Opioid Cost	Cost Paid by Grant(s) / Non-Local Funds	Maximum Direct Cost	Identified Opioid Cost	Cost Paid by Grant(s) / Non-Local Funds	Maximum Direct Cost	
13	Ohio Drug Law Enforcement Application 2016 (Dept. of Public Safety at pp. 2668 to 2693)	10/1/17-9/30/18	Drug Law Enforcement Subgrant received by Summit County Drug Unit for: • Personnel: \$62,500 • Consultant/Contracts: 28,560 • Supplies: <u>33,077</u> • Total: \$124,137	-	-	-	124,137	93,103	31,034	• See pp. 2668-2693 for more information regarding the Ohio Drug Law Enforcement Application 2016. • See p. 2693 for the Budget Request By Resource & Cost Category for the Ohio Drug Law Enforcement Application 2016 for Summit County Drug Unit. • See p. 2670 for the Drug Unit #1 Problem Statement (Heroin and Fentanyl). • "Cost Paid by Grant(s) / Non-Local Funds" includes a \$93,103 grant from the Ohio Office of Criminal Justice Services (see p. 2668). • "Direct Cost (General)" includes \$31,034 Cash Match from Summit County (see p. 2668).
Subtotal - Sheriff's Office				\$ 666,667	\$ 500,000	\$ 166,667	\$ 1,124,137	\$ 843,103	\$ 281,034	
County Jail										
14	Deposition of Shane Barker dated November 28, 2018, pp. 111:9-18, 114:12-115:7, 237:10-240:2, and 304:11-305:6.	2017	Purchase of a body scanner by the Jail in response to the opioid crisis.	\$ -	\$ -	\$ -	\$ 237,990	\$ -	\$ 237,990	• See Resolution No. 2017-254 for the "Direct Cost" amount of the body scanner mentioned in the Deposition of Shane Barker, dated November 28, 2018 (https://council.summitoh.net/index.php/legislative-information/legislation/2017/finish/131/8689).
Subtotal - County Jail				\$ -	\$ -	\$ -	\$ 237,990	\$ -	\$ 237,990	
Medical Examiner										
15	Summit County Banner Accounting System (SUMMIT_002054603)	2016-2018	General fund transfers made to the Coroner's Lab. These transfers account for any specific direct costs paid for by the Coroner's Lab, which may have included: • Hiring of an additional investigator due to high caseloads • New piece of lab equipment • Increase in body removal contract (doubled from \$25,000 to \$50,000) 2017: \$155,766 2018: <u>240,000</u> Total \$395,766	\$ -	\$ -	\$ -	\$ 395,766	\$ -	\$ 395,766	• "Identified Opioid Cost" includes amounts sourced from the "transfers in" revenue line item for the Coroner's Lab Fund [Account #19999 entitled "Transfers In." Fund: Coroner's Lab (28625) / Organization: Medical Examiner – Lab (3110)]. See SUMMIT_002054603 for further detail. • See the Summit County 2018 Operating Budget for discussion of transfers from the General Fund to the Coroner's Lab Fund (SUMMIT_000008414 at SUMMIT_000008457). • See (30)(b)(6) deposition of Brian Nelsen dated January 24, 2019, pp. 127:24-128:17 for more information regarding supplementing the medical examiner's budget. • See (30)(b)(6) deposition of Brian Nelsen dated January 24, 2019, pp. 137:21-139:5 for more information regarding the hiring of an additional investigator due to high caseloads. • See (30)(b)(6) deposition of Brian Nelsen dated January 24, 2019, pp. 132:22-133:20 for more information regarding the new piece of lab equipment. • See (30)(b)(6) deposition of Brian Nelsen dated January 24, 2019, pp. 131:4-6 for more information regarding the increase in the body removal contract.
16	Narrative in Support of Opioid Crisis Costs - County of Summit Medical Examiner (SUMMIT_000030830)	Approx. 2016	Hiring of 4 Locum Tenens doctors to assist with the caseload.	-	-	-	83,250	-	83,250	• Lisa Kohler (Chief Medical Examiner) created the "Narrative in Support of Opioid Crisis Costs, County of Summit Medical Examiner," which discusses costs at the Medical Examiner's office, including the amount spent on Locum Tenens doctors. See Deposition of Lisa Kohler, dated July 31, 2018, p. 277:7-18, for further detail.
Subtotal - Medical Examiner				\$ -	\$ -	\$ -	\$ 479,016	\$ -	\$ 479,016	
Total				\$ 666,667	\$ 500,000	\$ 166,667	\$ 10,464,007	\$ 2,387,818	\$ 8,076,188	

Notes:

1. "Identified Opioid Cost" represents the actual/estimated amount of a specific cost relating to opioid abuse.
2. "Prescription" represents the actual/estimated amount of the opioid abuse ("Identified Opioid Cost") relating to prescription opioid abuse.
3. "General" represents the actual/estimated amount of the opioid abuse ("Identified Opioid Cost") relating to non-prescription opioid abuse.
4. "Cost Paid by Grant(s) / Non-County Funds" represents the amount of the opioid cost paid through grants or non-county funds.
4. At this time I have not analyzed Children Services. Pursuant to the Court's recent rulings, I will supplement my report to include an analysis of Children Services upon receipt of the underlying case files from Plaintiffs.

HIGHLY CONFIDENTIAL

Appendix 6

Appendix 6

HIGHLY CONFIDENTIAL

Cuyahoga County
Affected Divisions
Comparison Between Budgeted and Actual Expenditures

Division	2012	2013	2014	2015	2016	2017	Total
Alcohol, Drug and Mental Health Board (a)							
Budgeted	\$ 190,617,024	\$ 71,988,435	\$ 80,830,669	\$ 76,928,007	\$ 70,858,602	\$ 78,274,370	\$ 569,497,107
Actual	211,063,863	61,348,208	58,657,836	64,216,810	67,877,533	74,004,592	537,168,842
Difference between Budgeted and Actual	(20,446,839)	10,640,227	22,172,833	12,711,197	2,981,069	4,269,778	32,328,265
Children and Family Services (b)							
Budgeted	192,336,659	186,639,023	168,780,642	179,504,242	161,727,628	165,306,333	1,054,294,527
Actual	185,606,924	159,028,202	167,763,793	167,385,908	156,938,741	162,576,928	999,300,496
Difference between Budgeted and Actual	6,729,735	27,610,821	1,016,849	12,118,334	4,788,887	2,729,405	54,994,031
Public Defender							
Budgeted	7,723,456	8,100,977	9,210,861	9,836,652	10,087,599	10,445,338	55,404,883
Actual	7,912,518	7,499,216	8,831,622	9,922,539	9,907,204	10,437,578	54,510,677
Difference between Budgeted and Actual	(189,062)	601,761	379,239	(85,887)	180,395	7,760	894,206
Court of Common Pleas & Prosecutor (c)							
Budgeted	86,217,740	89,023,006	96,021,220	99,893,125	100,569,127	102,793,384	574,517,602
Actual	85,434,186	88,050,574	93,367,875	98,228,368	99,203,058	101,855,708	566,139,769
Difference between Budgeted and Actual	783,554	972,432	2,653,345	1,664,757	1,366,069	937,676	8,377,833
Juvenile Court							
Budgeted	34,585,500	33,443,364	34,948,277	35,985,210	34,592,167	38,124,037	211,678,555
Actual	38,698,550	30,491,948	34,919,799	35,398,838	34,180,507	37,811,412	211,501,054
Difference between Budgeted and Actual	(4,113,050)	2,951,416	28,478	586,372	411,660	312,625	177,501
Sheriff							
Budgeted	82,907,500	84,973,558	92,160,507	101,378,837	92,225,969	98,209,620	551,855,991
Actual	83,685,855	88,176,562	91,361,729	98,890,448	91,816,387	96,608,656	550,539,637
Difference between Budgeted and Actual	(778,355)	(3,203,004)	798,778	2,488,389	409,582	1,600,964	1,316,354
Medical Examiner							
Budgeted	8,416,164	8,330,736	6,009,346	6,364,148	6,122,349	6,582,165	41,824,908
Actual	7,598,694	6,595,908	5,740,203	6,240,468	6,119,032	6,311,152	38,605,457
Difference between Budgeted and Actual	817,470	1,734,828	269,143	123,680	3,317	271,013	3,219,451
Total Budgeted	\$ 602,804,043	\$ 482,499,099	\$ 487,961,522	\$ 509,890,221	\$ 476,183,441	\$ 499,735,247	\$ 3,059,073,573
Total Actual	620,000,590	441,190,618	460,642,857	480,283,379	466,042,462	489,606,026	2,957,765,932
Difference	\$ (17,196,547)	\$ 41,308,481	\$ 27,318,665	\$ 29,606,842	\$ 10,140,979	\$ 10,129,221	\$ 101,307,641

Notes:

- (a) In 2012, Alcohol, Drug and Mental Health Board reported budgeted and actual expenditures for the time period July 1, 2011 through December 31, 2012. Expenditures for all other years are reported on a calendar year basis.
- (b) Child and Family Services expenditures are held in various funds. The amounts above are the addition of the Children and Family Services in General, Children and Family Services in Human Services and the Children Services "Total Expenditures". The Human Services section includes expenditures unrelated to Children and Family Services.
- (c) Court of Common Pleas & Prosecutor Expenditures are the total Judicial Expenditures from the General Fund minus Juvenile Court, Sheriff, Clerk of Courts, Medical Examiner, Probate Court, and Public Defender expenditures.

Sources:

- (1) Cuyahoga Single Audits and CAFRs for 2012, pp. 150-154, 161, 169, 171, and 177; 2013, pp. 153-157, 163, 172, and 178-179; 2014, pp. 159-163, 168, 173, 175, and 181; 2015, pp. 182-187, 192, 198, 206, and 246; 2016, pp. 191-195, 200, 206, 215, and 254; and 2017, pp. 202-207, 211, 217, 224, and 259.

HIGHLY CONFIDENTIAL

Appendix 7

Appendix 7

HIGHLY CONFIDENTIAL

Summit County

Comparison Between Budgeted and Actual Expenditures
Affected Divisions

Divisions	2012	2013	2014	2015	2016	2017	Total
Children Services Board							
Budgeted	\$ 47,681,533	\$ 47,534,022	\$ 47,037,084	\$ 49,425,907	\$ 47,980,405	\$ 51,914,589	\$ 291,573,540
Actual	44,115,106	44,437,105	44,593,033	47,077,253	48,261,350	47,960,149	276,443,996
Difference between Budgeted and Actual	3,566,427	3,096,917	2,444,051	2,348,654	(280,945)	3,954,440	15,129,544
Alcohol, Drug & Mental Health Board							
Budgeted	63,650,525	45,633,059	45,074,052	44,558,153	44,767,316	47,729,340	291,412,445
Actual	60,626,572	42,708,951	38,666,818	39,599,726	42,560,356	45,430,368	269,592,791
Difference between Budgeted and Actual	3,023,953	2,924,108	6,407,234	4,958,427	2,206,960	2,298,972	21,819,654
Jail							
Budgeted	18,956,800	19,326,900	19,523,900	21,256,960	20,994,600	21,547,100	121,606,260
Actual	18,917,393	19,318,592	20,174,457	20,993,703	21,472,242	21,525,675	122,402,062
Difference between Budgeted and Actual	39,407	8,308	(650,557)	263,257	(477,642)	21,425	(795,802)
Juvenile Court							
Budgeted	8,155,100	8,210,500	8,251,100	8,562,530	8,780,100	9,022,700	50,982,030
Actual	8,190,592	8,357,033	8,596,248	8,792,304	8,944,809	9,198,130	52,079,116
Difference between Budgeted and Actual	(35,492)	(146,533)	(345,148)	(229,774)	(164,709)	(175,430)	(1,097,086)
Sheriff							
Budgeted	9,176,900	9,644,500	9,499,400	8,952,350	9,092,900	9,214,800	55,580,850
Actual	9,432,637	9,223,696	8,468,174	9,047,430	8,864,611	9,663,668	54,700,216
Difference between Budgeted and Actual	(255,737)	420,804	1,031,226	(95,080)	228,289	(448,868)	880,634
Court of Common Pleas							
Budgeted	5,002,200	5,485,200	5,515,100	5,817,140	5,806,700	6,006,900	33,633,240
Actual	4,993,887	5,442,602	5,627,125	5,812,800	5,782,474	5,968,634	33,627,522
Difference between Budgeted and Actual	8,313	42,598	(112,025)	4,340	24,226	38,266	5,718
Alternative Corrections							
Budgeted	5,423,600	5,423,600	5,600,600	5,654,600	5,748,700	5,921,100	33,772,200
Actual	5,320,118	5,437,437	5,489,833	5,581,202	5,863,722	5,921,097	33,613,409
Difference between Budgeted and Actual	103,482	(13,837)	110,767	73,398	(115,022)	3	158,791
Prosecutor							
Budgeted	5,189,700	5,377,500	5,430,600	5,696,590	5,611,600	5,743,400	33,049,390
Actual	5,174,811	5,403,544	5,382,460	5,593,787	5,522,623	5,774,462	32,851,687
Difference between Budgeted and Actual	14,889	(26,044)	48,140	102,803	88,977	(31,062)	197,703
Adult Probation							
Budgeted	3,508,200	3,781,800	3,804,000	3,929,650	3,728,500	3,776,000	22,528,150
Actual	3,508,200	3,608,819	3,665,793	3,839,968	3,671,250	3,663,144	21,957,174
Difference between Budgeted and Actual	-	172,981	138,207	89,682	57,250	112,856	570,976
Medical Examiner							
Budgeted	1,665,600	1,681,900	1,707,000	1,830,380	1,716,500	1,788,600	10,389,980
Actual	1,661,714	1,677,847	1,700,877	1,825,301	1,589,581	1,824,674	10,279,994
Difference between Budgeted and Actual	3,886	4,053	6,123	5,079	126,919	(36,074)	109,986
Total Budgeted	\$ 168,410,158	\$ 152,098,981	\$ 151,442,836	\$ 155,684,260	\$ 154,227,321	\$ 162,664,529	\$ 944,528,085
Total Actuals	161,941,030	145,615,626	142,364,818	148,163,474	152,533,018	156,930,001	907,547,967
Difference	\$ 6,469,128	\$ 6,483,355	\$ 9,078,018	\$ 7,520,786	\$ 1,694,303	\$ 5,734,528	\$ 36,980,118

Source:

- (1) Summit Operating Budgets for 2012, pp. 38, 41-42; 2013, pp. 63-65; 2014, pp. 61-63; 2015, pp. 48-53; 2016, pp. 48-53; and 2017, pp. 50-55.
(2) Banner Accounting System (SUMMIT_002054603).

HIGHLY CONFIDENTIAL

Appendix 8

Appendix 8

HIGHLY CONFIDENTIAL

Cuyahoga and Summit Counties
McGuire's Total Affected Costs

Affected Costs (\$ Millions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total (a)	% of Total
Total Compensation Cost	\$220.0	\$226.8	\$239.4	\$230.1	\$231.1	\$229.3	\$228.4	\$234.4	\$243.2	\$255.7	\$255.6	\$268.3	\$2,862.0	70%
Total Non-Compensation Cost	\$113.6	\$115.1	\$115.2	\$109.5	\$103.0	\$106.4	\$101.7	\$95.7	\$97.5	\$99.7	\$98.5	\$98.7	\$1,254.4	30%
Total Affected Costs	\$333.5	\$341.9	\$354.6	\$339.6	\$334.1	\$335.7	\$330.0	\$330.1	\$340.6	\$355.4	\$354.1	\$367.0	\$4,116.5	100%

General Note:

- Amounts related to the ADAMHS and ADM Boards have not been included in this analysis due to McGuire only identifying the county contribution to the Boards and not the Affected Compensation and Non-Compensation Costs.
- Offsets to Affected Costs have been included in divisions/years identified by McGuire.

Note:

(a) Totals differ from McGuire's Total Affected Costs Tables (Tables IV.7 and IV.8) because 2018 amounts are not included above. 2018 amounts in McGuire's Appendices did not provide a breakout between Compensation and Non-Compensation Affected Costs. ADM/ADAMHS is also excluded from the analysis above.

Sources:

- (1) McGuire Appendices IV.C-2.1, 3.1, 4.1, 5.1, 6.1, 7.1, 8.1, 9.1.
- (2) McGuire Appendices IV.D-2.1, 3.1, 4.1, 5.1, 6.1, 7.1, 8.1, 9.1, 10.1.

HIGHLY CONFIDENTIAL

Appendix 9

Appendix 9

HIGHLY CONFIDENTIAL

Cuyahoga County
Children & Family Services
Offset of Title IV-E Funds

McGuire's Damages for Cuyahoga County Children and Family Services under Approach 1														
\$ Millions	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Total Costs	\$168.39	\$177.37	\$186.72	\$165.33	\$154.41	\$144.98	\$140.86	\$133.40	\$135.93	\$140.51	\$148.95	\$138.88	\$146.90	\$1,982.61
Total Compensation Costs	\$61.85	\$65.17	\$66.61	\$61.48	\$59.05	\$56.91	\$54.77	\$54.06	\$53.63	\$55.95	\$56.75	\$59.47		
Overhead Adjustment	85.7%	85.4%	85.3%	84.8%	85.4%	85.5%	84.8%	86.3%	87.2%	85.4%	85.6%	85.9%		
Affected Compensation Costs	\$53.01	\$55.65	\$56.84	\$52.13	\$50.45	\$48.64	\$46.43	\$46.63	\$46.75	\$47.77	\$48.56	\$51.10		
Affected Non-Compensation Costs	\$74.46	\$73.32	\$73.17	\$68.24	\$60.15	\$64.62	\$62.34	\$56.56	\$55.87	\$56.56	\$54.62	\$56.81		
Offset to Affected Compensation Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
Offset to Affected Non-Compensation Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
Total Affected Costs	\$127.47	\$128.97	\$130.01	\$120.37	\$110.60	\$113.27	\$108.77	\$103.19	\$102.62	\$104.33	\$103.18	\$107.91	\$114.15	\$1,474.83
Opioid-Related % of Custodies	4.5%	5.4%	6.2%	7.0%	7.4%	7.3%	7.2%	8.8%	10.1%	11.0%	14.9%	15.7%		
Approach 1 - Damages from Defendants' Misconduct - Direct Shipments Regression Method														
Harms Due to Defendants' Misconduct (direct)	21.1%	22.3%	23.3%	24.4%	25.9%	27.9%	33.0%	37.4%	41.5%	45.4%	47.7%	47.7%		
Damages from Defendants' Misconduct (direct)	\$1.21	\$1.54	\$1.87	\$2.06	\$2.11	\$2.31	\$2.60	\$3.41	\$4.30	\$5.21	\$7.34	\$8.09	\$8.56	\$50.62
Damages as a % of Total Costs	0.7%	0.9%	1.0%	1.2%	1.4%	1.6%	1.8%	2.6%	3.2%	3.7%	4.9%	5.8%	5.8%	

McGuire's Damages for Cuyahoga County Children Services under Approach 1 - <i>ADJUSTED</i> for Title IV-E Funds														
<i>\$ Millions</i>	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Total Costs	\$168.39	\$177.37	\$186.72	\$165.33	\$154.41	\$144.98	\$140.86	\$133.40	\$135.93	\$140.51	\$148.95	\$138.88	\$146.90	\$628.59
Total Compensation Costs	\$61.85	\$65.17	\$66.61	\$61.48	\$59.05	\$56.91	\$54.77	\$54.06	\$53.63	\$55.95	\$56.75	\$59.47		
Overhead Adjustment	85.7%	85.4%	85.3%	84.8%	85.4%	85.5%	84.8%	86.3%	87.2%	85.4%	85.6%	85.9%		
Affected Compensation Costs	\$53.01	\$55.65	\$56.84	\$52.13	\$50.45	\$48.64	\$46.43	\$46.63	\$46.75	\$47.77	\$48.56	\$51.10		
Affected Non-Compensation Costs	\$74.46	\$73.32	\$73.17	\$68.24	\$60.15	\$64.62	\$62.34	\$56.56	\$55.87	\$56.56	\$54.62	\$56.81		
Offset to Affected Compensation Costs														
Offset to Affected Non-Compensation Costs	\$(52.13)	\$(51.30)	\$(47.90)	\$(44.37)	\$(37.46)	\$(45.30)	\$(36.77)	\$(36.99)	\$(30.70)	\$(31.70)	\$(29.58)	\$(34.34)		\$(478.54)
Total Affected Costs	\$75.34	\$77.67	\$82.10	\$76.00	\$73.14	\$67.96	\$72.01	\$66.20	\$71.91	\$72.63	\$73.61	\$73.57	\$77.82	\$959.96
Opioid-Related % of Custodies	4.5%	5.4%	6.2%	7.0%	7.4%	7.3%	7.2%	8.8%	10.1%	11.0%	14.9%	15.7%		
Approach 1 - Damages from Defendants' Misconduct - Direct Shipments Regression Method														
Harms Due to Defendants' Misconduct (direct)	21.1%	22.3%	23.3%	24.4%	25.9%	27.9%	33.0%	37.4%	41.5%	45.4%	47.7%	47.7%		
Damages from Defendants' Misconduct (direct)	\$0.72	\$0.93	\$1.18	\$1.30	\$1.40	\$1.39	\$1.72	\$2.19	\$3.01	\$3.63	\$5.24	\$5.51	\$5.83	\$34.05
Damages as a % of Total Costs	0.4%	0.5%	0.6%	0.8%	0.9%	1.0%	1.2%	1.6%	2.2%	2.6%	3.5%	4.0%	4.0%	

General Note:

- Title IV-E funds provide reimbursement for both compensation and non-compensation costs.

Source:

- (1) McGuire Appendix IV.C-2.1
(2) CUYAH_001714459

Difference	\$16.6
% Reduction	33%

HIGHLY CONFIDENTIAL

Appendix 10

Appendix 10

HIGHLY CONFIDENTIAL

Summit County
Children Services
Offset of Title IV-E Funds

McGuire's Damages for Summit County Children Services under Approach 1														
\$ Millions	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Total Costs	\$51.16	\$50.92	\$50.58	\$49.87	\$50.37	\$47.11	\$44.12	\$44.44	\$44.59	\$47.08	\$48.26	\$47.96	\$52.13	\$628.59
Total Compensation Costs	\$26.71	\$25.88	\$27.38	\$27.59	\$31.07	\$27.34	\$25.06	\$26.92	\$27.19	\$28.18	\$28.61	\$28.36		
Overhead Adjustment	72.8%	72.8%	78.7%	78.5%	80.1%	79.7%	80.0%	79.7%	80.4%	79.9%	81.0%	78.7%		
Affected Compensation Costs	\$19.45	\$18.84	\$21.56	\$21.65	\$24.89	\$21.79	\$20.05	\$21.47	\$21.87	\$22.52	\$23.17	\$22.33		
Affected Non-Compensation Costs	\$20.32	\$20.93	\$20.19	\$19.06	\$17.95	\$17.24	\$15.26	\$15.73	\$15.40	\$16.56	\$17.61	\$17.30		
Offset to Affected Compensation Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
Offset to Affected Non-Compensation Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
Total Affected Costs	\$39.77	\$39.77	\$41.75	\$40.72	\$42.84	\$39.03	\$35.31	\$37.20	\$37.26	\$39.08	\$40.77	\$39.63	\$43.07	\$516.21
Opioid-Related % of Custodies	4.4%	5.1%	6.5%	8.8%	22.0%	21.2%	23.3%	24.7%	24.1%	25.0%	30.3%	27.0%		
Approach 1 - Damages from Defendants' Misconduct - Direct Shipments Regression Method														
Harms Due to Defendants' Misconduct (direct)	21.1%	22.3%	23.3%	24.4%	25.9%	27.9%	33.0%	37.4%	41.5%	45.4%	47.7%	47.7%		
Damages from Defendants' Misconduct (direct)	\$0.36	\$0.45	\$0.63	\$0.88	\$2.44	\$2.31	\$2.71	\$3.43	\$3.73	\$4.44	\$5.89	\$5.11	\$5.55	\$37.94
Damages as a % of Total Costs	0.7%	0.9%	1.2%	1.8%	4.8%	4.9%	6.1%	7.7%	8.4%	9.4%	12.2%	10.6%	10.6%	

McGuire's Damages for Summit County Children Services under Approach 1 -ADJUSTED for Title IV-E Funds														
\$ Millions	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Total Costs	\$51.16	\$50.92	\$50.58	\$49.87	\$50.37	\$47.11	\$44.12	\$44.44	\$44.59	\$47.08	\$48.26	\$47.96	\$52.13	\$628.59
Total Compensation Costs	\$26.71	\$25.88	\$27.38	\$27.59	\$31.07	\$27.34	\$25.06	\$26.92	\$27.19	\$28.18	\$28.61	\$28.36		
Overhead Adjustment	72.8%	72.8%	78.7%	78.5%	80.1%	79.7%	80.0%	79.7%	80.4%	79.9%	81.0%	78.7%		
Affected Compensation Costs	\$19.45	\$18.84	\$21.56	\$21.65	\$24.89	\$21.79	\$20.05	\$21.47	\$21.87	\$22.52	\$23.17	\$22.33		
Affected Non-Compensation Costs	\$20.32	\$20.93	\$20.19	\$19.06	\$17.95	\$17.24	\$15.26	\$15.73	\$15.40	\$16.56	\$17.61	\$17.30		
Offset to Affected Compensation Costs	\$ (15.33)	\$ (14.34)	\$ (14.72)	\$ (12.50)	\$ (16.82)	\$ (14.37)	\$ (9.67)	\$ (12.84)	\$ (11.24)	\$ (9.80)	\$ (12.44)	\$ (13.00)		\$ (157.08)
Offset to Affected Non-Compensation Costs														
Total Affected Costs	\$24.43	\$25.44	\$27.03	\$28.22	\$26.02	\$24.66	\$25.64	\$24.36	\$26.02	\$29.28	\$28.33	\$26.63	\$28.94	\$345.00
Opioid-Related % of Custodies	4.4%	5.1%	6.5%	8.8%	22.0%	21.2%	23.3%	24.7%	24.1%	25.0%	30.3%	27.0%		
Approach 1 - Damages from Defendants' Misconduct - Direct Shipments Regression Method														
Harms Due to Defendants' Misconduct (direct)	21.1%	22.3%	23.3%	24.4%	25.9%	27.9%	33.0%	37.4%	41.5%	45.4%	47.7%	47.7%		
Damages from Defendants' Misconduct (direct)	\$0.22	\$0.29	\$0.41	\$0.61	\$1.48	\$1.46	\$1.97	\$2.25	\$2.60	\$3.32	\$4.09	\$3.43	\$3.73	\$25.87
Damages as a % of Total Costs	0.4%	0.6%	0.8%	1.2%	2.9%	3.1%	4.5%	5.1%	5.8%	7.1%	8.5%	7.2%	7.2%	

General Note:

- Title IV-E funds provide reimbursement for both compensation and non-compensation costs.

Source:

- (1) McGuire Appendix IV.D-2.1
(2) SUMMIT_002054603

Difference	\$12.1
% Reduction	32%

HIGHLY CONFIDENTIAL

Appendix 11

Appendix 11

HIGHLY CONFIDENTIAL

Abatement Experts Treatment and Prevention Proposals and Programs

Proposed Program Category	Alexander	Keyes	Liebman	Lembke	Wexelblatt	Young
Medication Assisted Treatment	X	X	X	X	X	X
Other Treatment	X		X	X		
Criminal Justice Programs / Jails	X		X			X
Media Campaigns	X		X		X	
Naloxone Distribution	X	X	X	X		
Programs for Adolescents and Young Adults	X		X		X	
Medical Professional Education and Guidance	X		X	X	X	X
Pregnant Women/Neonatal Care and Treatment	X		X		X	X
Programs for Foster Care / Protective Services	X					X
Drug Disposal and Needle Exchange Programs	X		X	X		
Surveillance	X		X			
Fentanyl Testing	X	X				
Prescription Drug Monitoring Programs	X					
Research	X					
Law Enforcement Programs	X		X			

Sources:

-
- (1) *See* Alexander Report.
(2) *See* Keyes Report
(3) *See* Liebman Report.
(4) *See* Lembke Report
(5) *See* Wexelblatt Report.
(6) *See* Young Report.

HIGHLY CONFIDENTIAL

Appendix 12

Appendix 12

HIGHLY CONFIDENTIAL

Cuyahoga County
Existing or Proposed Abatement Programs

Abatement Category	Providers Within Cuyahoga County	Programs/Services Provided	Funded By	Sources
Treatment				
	Alcohol, Drug Addiction & Mental Health Services ("ADAMHS")	Administers/oversees a variety of substance abuse programs county-wide	Multiple Sources (Federal, State, Local)	http://www.adamhscc.org/
	MetroHealth System	Various healthcare services, including hospital care <i>MetroHealth System is a non-profit, public health care system located in Cleveland.</i>	Multiple Sources (Federal, State, Local)	https://www.metrohealth.org/foundation/publications/foundation-annual-report Cuyahoga County Board of Health Program Narrative (CUYAH_013470244)
	Veterans Administration Hospital	-Alcoholics Anonymous (AA) -Medication Assisted Treatment (MAT)	Funded in part by ADAMHS	Cuyahoga County Board of Health Program Narrative (CUYAH_013470244)
	St. Vincent Charity Medical Center (Rosary Hall)	-Intake Services -Medical Evaluations and Ongoing Assessments -Medical Stabilization and Acute Care Detoxification -Intensive Outpatient -Individual Counseling -Aftercare -Family Program -Case-managed Transition into Community -Medication-Assisted Treatment	ADAMHS Board through Multiple Sources (Federal, State, Local)	https://www.stvincentcharity.com/services-centers/behavioral-health-addiction-medicine/addiction-medicine-rosary-hall/ Cuyahoga County Board of Health Program Narrative (CUYAH_013470244)
	Salvation Army of Greater Cleveland Harbor Light	-Detoxification -Intensive Outpatient	Funded in part by ADAMHS	https://neo.salvationarmy.org/northeastohio/HarborLightPS
	Recovery Resources	-Intensive Outpatient Treatment -Partial Hospitalization -Women and Family Services Intensive Outpatient Treatment -Non-Intensive Outpatient Treatment -Case Management -MAT is available for clients who meet criteria for opiate use disorder combined with Intensive Outpatient Opiate Specific treatment 4 days each week.	Funded in part by ADAMHS	https://www.recres.org/ManagedFiles/2019%20Service%20Directory.pdf
	Community Assessment and Treatment Services (CATS)	-Outpatient Treatment -Residential Treatment -Assessment -Group and Individual Counseling -Case Management -Drug Testing	Partnered with ADAMHS, Ohio Department of Rehabilitation & Correction, CARF, and more.	http://communityassessment.org/
	Stella Maris Detox Program	-Detox services -MAT (Vivitrol) -Other drug rehabilitation services.	Contracts with U.S. Probation and Pretrial Services, Veterans Admin, ADAMHS, Homeless Services and Lorain County Alcohol and Drug Addiction Services	https://stellamariscleveland.com/services/
	Cleveland Clinic Lutheran Hospital Alcohol and Drug Recovery Center	Comprehensive 12-step drug rehabilitation program	Funded in part by ADAMHS	https://my.clevelandclinic.org/locations/lutheran-hospital/specialties/alcohol-and-drug-recovery-center

Appendix 12

HIGHLY CONFIDENTIAL

Cuyahoga County
Existing or Proposed Abatement Programs

Abatement Category	Providers Within Cuyahoga County	Programs/Services Provided	Funded By	Sources
Treatment (continued)				
	Hitchcock Center for Women, Inc	-Residential treatment for women and allows them to bring multiple children (up to age 12) -Intensive Outpatient Treatment with or without Housing Support -Outpatient Services	Funded in part by ADAMHS	http://hcfw.org/our-services/treatment/
	ORCA House	-Men's and Women's Residential Program -Intensive Outpatient Program -Aftercare Program	Funded in part by ADAMHS	http://www.orcahouse.org/index.php/programs
	New Directions	-Recovery Housing -Non-intensive Outpatient Program -Intensive Outpatient Program -Residential for Dual Diagnosis Conditions -Case Management -Group, Individual, and Family Counseling	Funded in part by ADAMHS	http://newdirections.co/treatment-services/
	Community Action Against Addiction	-Medication Assisted Treatment -Counseling -Transitional Housing	Funded in part by ADAMHS	https://www.caaaddiction.org/
	Catholic Charities	Clinically managed low-intensity residential services (MAT)	ADAMHS Board (CURES Act)	http://adamhscc.org/pdf_adamhscc/en-US/(no%20numbers%20version%20for%20website)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf
	Cleveland Treatment Center	Clinically managed low-intensity residential services (MAT)	ADAMHS Board (CURES Act)	http://adamhscc.org/pdf_adamhscc/en-US/(no%20numbers%20version%20for%20website)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf
	Cleveland Treatment Center	-Assessment -Medical Evaluation/Social -Individual and Group Counseling -Crisis Intervention -Vocational Rehabilitation -Case Management	Multiple Sources (Federal, State, Local)	http://www.clevelandtreatmentcenter.org/about.htm
	Cleveland Comprehensive Treatment Center	-MAT (Methadone and Suboxone) -Counseling Services	Unknown - part of Ohio Comprehensive Treatment Centers	https://www.ohioctc.com/location/cleveland/
	Community Action Against Addiction	MAT (Methadone)	ADAMHS Board (CURES Act)	http://adamhscc.org/pdf_adamhscc/en-US/(no%20numbers%20version%20for%20website)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf
	Ascent	Peer Support MetroHealth ED - The program connects overdose survivors with peer support, a warm hand off to treatment if they agree and follow-up services to aid them in recovery	ADAMHS Board (CURES Act)	http://adamhscc.org/pdf_adamhscc/en-US/(no%20numbers%20version%20for%20website)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf

Appendix 12

HIGHLY CONFIDENTIAL

Cuyahoga County
Existing or Proposed Abatement Programs

Abatement Category	Providers Within Cuyahoga County	Programs/Services Provided	Funded By	Sources
Treatment (continued)				
	Woodrow Project	Certified Peer Recovery Supporter Recovery Housing	ADAMHS Board (CURES Act)	http://adamhscc.org/pdf_adamhscc/en-US/(no%20numbers%20version%20for%20website)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf
	I'm in Transition	Certified Peer Recovery Support Recovery Housing	ADAMHS Board (CURES Act)	http://adamhscc.org/pdf_adamhscc/en-US/(no%20numbers%20version%20for%20website)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf
	Visiting Nurse Association	Ambulatory Withdrawal Management Services	ADAMHS Board (CURES Act)	http://adamhscc.org/pdf_adamhscc/en-US/(no%20numbers%20version%20for%20website)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf
	The Recovery Village	-Medication-Assisted Treatment -Inpatient Rehab -Intensive Outpatient -Outpatient Rehab -Aftercare for Drug Addiction Treatment	Unknown - owned by The Recovery Village	https://www.therecoveryvillage.com/local-rehab-resources/ohio/cleveland/
	Cleveland YMCA (Y-Haven, Rising Hope, Open Door)	-Intensive Outpatient Treatment -Transitional Housing -MAT (Naltrexone and Vivitrol)	ADAMHS Board (Federal, State, Local); Care Alliance Center	https://www.clevelandymca.org/y-haven.html
	United Way First Call for Help	United Way 2-1-1 connects individuals and families to social services 24 hours a day, every day of the year. We provide accurate and timely assessment, information and service navigation to help people understand their options, resolve problems and improve their lives	Funded in part by ADAMHS	https://www.211oh.org/
	ADAMHS Board	Pilot program launched in June 2017 testing free Uber rides as a possible solution to transportation barriers for those receiving outpatient treatment at Rosary Hall at St. Vincent Charity Medical Center.	ADAMHS Board (Federal, State, Local) and other grants	http://adamhscc.org/pdf_adamhscc/en-US/(no%20numbers%20version%20for%20website)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf
	30 Days to Family Ohio - Partners in Cuyahoga County	Short-term intensive intervention program that moves children from foster care to safe kinship placements in the shortest time possible.	Victims of Crime Act (VOCA), Keybank Foundation, Mt. Sinai Health Care Foundation and Nord Family Foundation	https://www.ohioattorneygeneral.gov/Files/Briefing-Room/News-Releases/30-Days-to-Family-Interim-Report.aspx
	MetroHealth System	Mother and Child Dependency Program	Cuyahoga County and MetroHealth System	https://www.metrohealth.org/obgyn/substance-use-and-pregnancy

Appendix 12

HIGHLY CONFIDENTIAL

Cuyahoga County

Existing or Proposed Abatement Programs

Abatement Category	Providers Within Cuyahoga County	Programs/Services Provided	Funded By	Sources
Treatment (continued)				
	Multiple Independent Practitioners and Ohio Mental Health and Addiction Services	State of Ohio's Maternal Opiate Medical Supports (MOMS) -Practitioners working (in Cuyahoga County) to improve services for moms with opioid use disorder and their babies	Ohio Department of Medicaid, Ohio Department of Mental Health and Addiction Services, and the Ohio Department of Health	http://momsohio.org/moms-moms-to-be
	Hospitals within Cuyahoga County	The Ohio Children's Hospitals Neonatal Research Consortium Enteral Morphine or Methadone Protocol for NAS From Maternal Exposure	Unknown	https://pediatrics.aappublications.org/content/141/4/e20170900 https://pediatrics.aappublications.org/content/pediatrics/suppl/2018/03/05/peds.2017-0900.DCSupplemental/PEDS_20170900SupplementaryData.pdf
	MetroHealth System, Office of Opioid Safety (OOS)	Alternative to Incarceration Program which provides increased access to MAT for qualifying inmates in lieu of incarceration.	ODH Injury Prevention Grant	http://opiatecollaborative.cuyahogacounty.us/pdf_OpiateCollaborative/en-US/2018AnnualReport.pdf
	Cleveland Municipal Court	Selective Intervention Program - diversion program for first offenders	Administered by the Probation Department	https://clevelandmunicipalcourt.org/judicial-services/court-programs-services/selective-intervention-program
	Court of Common Pleas - Drug Court Specialty Docket	Alternative to incarceration - reduce the recidivism among drug-dependent offenders by providing enhanced treatment services.	Federal, State, Local grants, including SAMHSA and Bureau of Justice Assistance grants, and the Supreme Court of Ohio	Court of Common Pleas Annual Report 2016 p. 77
	Court of Common Pleas - Recovery Court	Alternative to incarceration - treatment services to eligible offenders.	Federal Grant (Ohio Supreme Court)	Court of Common Pleas Annual Report 2016 p. 9

Appendix 12

HIGHLY CONFIDENTIAL

Cuyahoga County
Existing or Proposed Abatement Programs

Abatement Category	Providers Within Cuyahoga County	Programs/Services Provided	Funded By	Sources
Harm Reduction				
	Cuyahoga County Board of Health and MetroHealth System	Project DAWN (Deaths Avoided with Naloxone)	Ohio Mental Health and Addiction Services (OMHAS), MetroHealth System, ADAMHS Board	http://adamhscc.org/pdf_adamhscc/en-US/(no%20numbers%20version%20for%20website)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf http://opiatecollaborative.cuyahogacounty.us/en-US/Project-DAWN.aspx
	Cuyahoga County Board of Health	Naloxone Dispensed at Discount Drug Mart	Cuyahoga County Board of Health and MetroHealth	http://www.ccbh.net/opiates/
	Circle Health Services	Circle Health Services Syringe Exchange Program	Circle Health Services	https://circlehealthservices.org/wp-content/uploads/2016/04/FreeClinic_annualreport2015_web.pdf
	Circle Health Services	Circle Health Services - Fentanyl Test Strips (15,000 funded)	ADAMHS Board (Federal, State, Local)	http://adamhscc.org/pdf_adamhscc/en-US/(no%20numbers%20version%20for%20website)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf
	Cuyahoga County Board of Health	Hepatitis vaccines for free or at a low cost	Multiple Sources (Federal, State, Local)	https://www.ccbh.net/immunization-clinics-2
	Cleveland Department of Public Health	Cleveland Department of Public Health Immunization clinics provide vaccines for free to children under 18 years old	Unknown	http://www.clevelandhealth.org/network/health/immunizations.php
	Cleveland Department of Public Health	Grant funding to over 40 area community-based agencies for prevention, education, and housing services to people affected by HIV/AIDS	Grants	http://www.clevelandhealth.org/network/health/HIV_AIDS.php
	Cuyahoga County, Senior and Adult Services	Cuyahoga County Division of the Ryan White HIV/AIDS Program - home health care to persons living with AIDS in Cuyahoga County	Ohio Department of Health	https://dsas.cuyahogacounty.us/en-US/ryan-white-program.aspx
	Recovery Resources	HIV/AIDS prevention, intervention, and testing program	Multiple Sources (ADAMHS, CARF, United Way, and others)	https://www.recres.org/ManagedFiles/2019%20Service%20Directory.pdf
	MetroHealth System	HIV/AIDS Services	Multiple Sources (Federal, State, Local)	https://www.metrohealth.org/infectious-disease/hiv-aids-services
	The AIDS Taskforce of Greater Cleveland	HIV/AIDS-focused healthcare and pharmacy services	Ohio Department of Health	www.aids-taskforce.org
	Circle Health Services	Provides free or low cost community outreach education, prevention programming, testing, and treatment for HIV	Multiple Sources (Federal, State, Local)	https://circlehealthservices.org/services/hiv-services/
	Cleveland Treatment Center (Bureau of Drug Abuse)	Cleveland Treatment Center has established external relationships that support the needs of the targeted population for referral networks and resource links to HIV/STD medical service providers, housing, mental health care, nutritionist care, dental care, eye care, and other relative services.	Multiple Sources (Federal, State, Local)	http://www.clevelandtreatmentcenter.org/about.htm

Appendix 12

HIGHLY CONFIDENTIAL

Cuyahoga County
Existing or Proposed Abatement Programs

Abatement Category	Providers Within Cuyahoga County	Programs/Services Provided	Funded By	Sources
Prevention				
	Multiple Providers	"Know the Risks" Campaign	Partners with ADAMHS Board	https://www.cleveland.com/knowtherx/2017/04/know_the_risks_campaign_is_cri.html http://adamhsc.org/pdf_adamhsc/en-US/(no%20numbers%20version%20for%20website)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf
	Catholic Charities, Diocese of Cleveland	"Hope & Healing Beyond Heroin: A Family Resource Guide for Cuyahoga County,"	Catholic Commission of Cuyahoga County	https://ccdocleorg.sitedistrict.com/wp-content/uploads/filebase/social%20action/social_action/Heroin-Brochure-Cuyahoga-County_final.pdf
	Cuyahoga County Opiate Task Force	Drug Awareness and Prevention Program	Grant awarded by the Ohio Department of Health, Bureau of Healthy Ohio, Violence and Injury Prevention Program and as a sub-award of a grant issued by the CDC, Preventative Health and Health Services Block Grant	http://opiatecollaborative.cuyahogacounty.us/en-US/Educational-Outreach.aspx http://www.ccbh.net/wp-content/uploads/2017/07/2016-CCOTF-Annual-Report.pdf
	ADAMHS	Heroin Prevention Campaign (end of 2016 and the beginning of 2017) -"I Care About My Life and I Care About Your Life."	ADAMHS Board (Federal, State, Local)	http://adamhsc.org/pdf_adamhsc/en-US/(no%20numbers%20version%20for%20website)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf
	Cuyahoga County Prosecutor's Office	"Let's Face It" Campaign	Cuyahoga County (Forfeiture Funds)	http://www.letsfaceheroin.com/
	Catholic Commission of Cuyahoga County	"Greater Than Heroin" Campaign	Catholic Commission of Cuyahoga County	https://ccdocle.org/social-action/initiatives/hope-healing-beyond-heroin
	Recovery Resources	Project SUCCESS	Partnered with ADAMHS, CARF, and United Way	https://www.recres.org/ManagedFiles/2019%20Service%20Directory.pdf
	Cuyahoga County Sheriff's Department	Rx Drug Drop Box Program	Cuyahoga County	https://sheriff.cuyahogacounty.us/en-US/RxDrugDropBoxProgram.aspx
	Cleveland Clinic	Cleveland Clinic Drug Disposal Bins	The City of Cleveland	https://newsroom.clevelandclinic.org/2018/04/25/cleveland-clinic-providing-safe-way-for-community-to-dispose-unneeded-medications/
	Cleveland Police Department	Heroin Involved Death Investigations Unit	The City of Cleveland	https://www.cleveland.com/metro/2018/05/specialized_cleveland_police_u.html
	Moore Counseling and Mediation Services	Police Assisted Addiction and Recovery Initiative (PAARI) Model	ADAMHS Board (CURES Act)	http://adamhsc.org/pdf_adamhsc/en-US/(no%20numbers%20version%20for%20website)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf
	The Woodrow Project	Police Assisted Addiction and Recovery Initiative (PAARI) Model	ADAMHS Board (CURES Act)	http://adamhsc.org/pdf_adamhsc/en-US/(no%20numbers%20version%20for%20website)%20ADAMHS%20A%20Leader%20in%20Combating%20the%20Heroin%20Crisis%20UPDATE%20September.pdf

Appendix 12

HIGHLY CONFIDENTIAL

Cuyahoga County
Existing or Proposed Abatement Programs

Abatement Category	Providers Within Cuyahoga County	Programs/Services Provided	Funded By	Sources
System Coordination				
	Ohio Dept. of Health	EpiCenter - used by existing staff to track ER visits by drug type	Ohio Dept. of Health	Deposition of Christopher Kippes dated January 18, 2018, pp. 50:14-52:17, 55:3-11, 128:16-129:18, 150:1-16, 159:6-164:14
	Cuyahoga County Board of Health	Injury Prevention Reports	Multiple Sources (Federal, State, Local)	http://opiatecollaborative.cuyahogacounty.us/pdf_OpiateCollaborative/en-US/2018AnnualReport.pdf
	Ohio Mental Health & Addiction Services	Ohio Substance Abuse Monitoring (OSAM)	Ohio Department of Mental Health and Addiction Services (ODMHAS)	https://mha.ohio.gov/Research/Ohio-Substance-Abuse-Monitoring-OSAM-Network http://www.fairfieldadamh.org/uploads/1/3/1/0/13100616/osam_faq_brochure.pdf
	Ohio Automated Rx Reporting System (OARRS)	OARRS collects information on all outpatient prescriptions for controlled substances and one non-controlled substance (gabapentin) dispensed by Ohio-licensed pharmacies and personally furnished by Ohio prescribers. This data is reported every 24 hours and is maintained in a secure database. Drug wholesalers are also required to submit information monthly on all controlled substances and gabapentin sold to an Ohio licensed pharmacy or prescriber.	State of Ohio Board of Pharmacy	https://wholesale.ohiopmp.gov/Integration.aspx

Highly Confidential

Appendix 13

Appendix 13

HIGHLY CONFIDENTIAL

Summit County
Existing or Proposed Abatement Programs

Abatement Category	Providers Within Summit County	Programs/Services Provided	Funded By	Sources
Treatment				
	Alcohol, Drug Addiction & Mental Health ("ADM")	Administers/oversees a variety of substance abuse programs county-wide	Multiple Sources (Federal, State, Local)	2018 ADM Annual Budget Review (SUMMIT_001085282) https://www.admboard.org/
	Oriana House	-Intake & Assessment -Drop-In Center (23 Hour Observation) -Sub-Acute Detoxification -Outpatient -Intensive Outpatient -Laboratory Urinalysis -Residential Programs -MAT Community Based Correctional Facility -Non Residential Programs (incl. Drug Court)	Multiple Sources (Federal, State, Local) including ADM	2018 ADM Annual Budget Review (SUMMIT_001085282) http://www.orianahouse.org/programs/summit/crisis_center.php http://www.orianahouse.org/programs/summit/summitsubstanceabuse.php
	Interval Brotherhood Home	-Residential Treatment Programs (incl. 24/hour confinement facility for alcohol/drug treatment) -MAT not provided.	Funded in part by ADM; Contracts with the City of Akron	2018 ADM Annual Budget Review (SUMMIT_001085282) Agreement with Akron to Provide Community Correctional Services (AKRON_000209254) https://www.ibh.org/treatment-programs/
	Edwin Shaw Rehab	-Intake & Assessment -Outpatient -Intensive Outpatient -Laboratory Urinalysis -MAT (Suboxone)	Funded in part by ADM	2018 ADM Annual Budget Review (SUMMIT_001085282)
	Community Health Center	-Intake & Assessment -Ambulatory Detoxification -Outpatient -Intensive Outpatient -Residential Treatment (RAMAR) -Laboratory Urinalysis -MAT (Methadone & Suboxone)	Funded in part by ADM	2018 ADM Annual Budget Review (SUMMIT_001085282) http://www.commhealthcenter.org/
	Mature Services	-Intake & Assessment -Outpatient -Intensive Outpatient	Funded in part by ADM	2018 ADM Annual Budget Review (SUMMIT_001085282)
	Summit County Public Health	-Intake & Assessment -Outpatient -Intensive Outpatient -Laboratory Urinalysis -MAT (Vivitrol & Suboxone)	ADM; Federal and State Grants	2018 ADM Annual Budget Review (SUMMIT_001085282) Deposition of Jackie Pollard dated November 30, 2018, p. 38:11-40:12 https://www.scph.org/news/medication-assisted-treatment-program
	Akron-Urban Minority Alcoholism Drug Abuse Outreach Program, Inc. (UMADAOP)	-Intake & Assessment -Intensive Outpatient -Group and Individual Counseling -Case Management	Funded in part by ADM	2018 ADM Annual Budget Review (SUMMIT_001085282) https://www.akronumadaop.com/

Appendix 13

HIGHLY CONFIDENTIAL

Summit County
Existing or Proposed Abatement Programs

Abatement Category Treatment (continued)	Providers Within Summit County	Programs/Services Provided	Funded By	Sources
	Summa Health (St. Thomas Hospital / Sr. Ignatia Hall)	Acute Detoxification	Funded in part by ADM	2018 ADM Annual Budget Review (SUMMIT_001085282) https://www.summahealth.org/medicals/services/behavioral/aboutourservices/inpatient-services/ignatia-hall-detox-unit
	Summa Health	-Outpatient -Intensive Outpatient -MAT (Vivitrol)	Funded in part by ADM	https://www.summahealth.org/medicals/services/behavioral/aboutourservices/outpatient-services/vivitrol-clinic
	Akron Recovery Court	MAT: Provides MAT treatment for individuals involved in the criminal justice system	Federal Grant - ATP (Addiction Treatment Program)	Deposition of Jeff Sturmi dated November 15, 2018, p. 115:7-117:17
	Turning Point Program (Summit County Courts)	MAT: from 2012 to 2015/2016, SAMHSA provided a grant for provided suboxone to participants.	SAMHSA / BJA Grant	Deposition of Jennifer Hawkins dated February 28, 2019, pp. 44:7-25, 45:21-46:4, and 150:3-12
	Summit Oaks Hospital Drug and Alcohol Rehabilitation Program	-Detoxification medically managed. Does use Suboxone and Subutex for Heroin Detox -Short-term rehabilitation program after detox occurs -Intensive Outpatient Program	Unknown - owned by Universal Health Services, Inc.	https://summitoakshospital.com/program-services/adult-inpatient/drug-alcohol-rehabilitation-program
	Freedom House Recovery Housing for Women	Provides recovery housing and drug treatment to single women of Summit County	Funded in part by ADM	http://www.fh4women.org/ https://www.admboard.org/recovery-support-services.aspx
	Legacy III Supportive Housing for Women	-Provides transitional housing to single women who have been sober for at least 60 days -Provides permanent housing to those who have graduated from the transitional program	Funded in part by ADM	http://www.legacythree.org/ https://www.admboard.org/recovery-support-services.aspx
	F.I. Community Housing	Peer Oriented/Peer Operated Recovery Community Organization that provides recovery housing, social and supportive services	Funded in part by ADM	http://ficommunityhousing.org https://www.admboard.org/recovery-support-services.aspx
	Akron Municipal Court Discretionary Rehabilitation Program in collaboration with Oriana House	Diversions program for first-offenders that began in 1998 in collaboration with Oriana House.	Unknown	https://courts.ci.akron.oh.us/programs/discretionary_rehabilitation.htm
	Pinnacle Treatment Center	-Residential Programs -Intensive Outpatient Program -Recovery Housing -Counseling -MAT (Methadone, Suboxone, and Vivitrol)	Unknown - owned by Pinnacle Treatment Centers	https://pinnacletreatment.com/treatment-therapies/treatment-options/
	Cleveland Clinic Akron General Alcohol and Drug Recovery Center	-Intensive Outpatient Programs -Aftercare -MAT	Unknown - owned by Cleveland Clinic	https://my.clevelandclinic.org/locations/akron-general/specialties/alcohol-drug-recovery-center
	ADM	24-Hour Crisis Center (Oriana House)	Multiple Sources (Federal, State, Local)	2018 ADM Annual Budget Review (SUMMIT_001085282)
	ADM	ADM Addiction Helpline	Grant - CURES Act	Report on Opiate Epidemic Impact (SUMMIT_002053751)
	Quick Response Team	Responds to overdoses and tries to connect people to treatment	Funded in part by ADM (CURES Act)	2018 ADM Annual Budget Review (SUMMIT_001085282)

Appendix 13

HIGHLY CONFIDENTIAL

Summit County
Existing or Proposed Abatement Programs

Abatement Category Treatment (continued)	Providers Within Summit County	Programs/Services Provided	Funded By	Sources
	United Way 2-1-1 Summit County	2-1-1 helps people across Summit County find local resources when they don't know where to turn for help	Unknown	https://www.uwsummit.org/211
	30 Days to Family Ohio - Partners in Cuyahoga County	Short-term intensive intervention program that moves children from foster care to safe kinship placements in the shortest time possible.	Victims of Crime Act (VOCA), Keybank Foundation, Mt. Sinai Health Care Foundation and Nord Family Foundation	https://www.ohioattorneygeneral.gov/Files/Briefing-Room/News-Releases/30-Days-to-Family-Interim-Report.aspx
	SummaHealth	Centering Pregnancy - provides expecting mothers with addiction	Unknown - owned by Summa Health	https://www.summahealth.org/flourish/entries/2016/08/centeringpregnancy-helping-pregnant-mothers-struggling-with-addiction
	Multiple Independent Practitioners and Ohio Mental Health and Addiction Services	State of Ohio's Maternal Opiate Medical Supports (MOMS) -Practitioners working (in Summit County) to improve services for moms with opioid use disorder and their babies - website with different resources for expecting mothers	Ohio Department of Medicaid, Ohio Department of Mental Health and Addiction Services, and the Ohio Department of Health	http://momsOhio.org/moms-moms-to-be
	Hospitals within Summit County	The Ohio Children's Hospitals Neonatal Research Consortium Enteral Morphine or Methadone Protocol for NAS From Maternal Exposure	Unknown	https://pediatrics.aappublications.org/content/141/4/e20170900 https://pediatrics.aappublications.org/content/pediatrics/suppl/2018/03/05/peds.2017-0900.DCSupplemental/PEDS_20170900SupplementaryData.pdf
	Summit County Jail	-MAT (Vivitrol) -Re-Entry Coordinator	Grant from ADM	Exhibit 16 to the Deposition of Shane Barker dated November 28, 2018 2016 Sheriff's Office Annual Report, p. 49 Summit County Jail Vivitrol Administration (SUMMIT_001970930)
	Glenwood Jail	Repurposed into Community Alternative Sentencing Center (CASC)	Oriana House; Contract with Summit County	Deposition of Brian Nelson 30(b)(6), pp. 167, 173-174 2019 Summit County Operating Budget, p. 80.
	Greenleaf Family Center	Greenleaf teamed up with the Court of Common Pleas to decrease the backlog of assessments for the intervention program which helps criminal defendants find treatment	Targeted Community Alternatives to Prison funding Grant	http://www.akronlegalnews.com/editorial/19449 http://greenleafctr.org/
	Akron-Urban Minority Alcoholism Drug Abuse Outreach Program, Inc.'	Re-entry Program designed to specifically address alcohol and other drug related offenders by linking them to relapse prevention services and to specifically address the need for supportive services for this population.	Funded in part by ADM	2018 ADM Annual Budget Review (SUMMIT_001085282) https://www.akronumadaop.com/
	Truly Reaching You	-Reentry program for men who served their sentences and are returning to the community -Peer Recovery Addiction Support -Recovery Housing	Funded in part by ADM	http://trulyreachingyou.com/ https://www.admboard.org/recovery-support-services.aspx

Appendix 13

HIGHLY CONFIDENTIAL

Summit County
Existing or Proposed Abatement Programs

Abatement Category	Providers Within Summit County	Programs/Services Provided	Funded By	Sources
Harm Reduction				
	Summit County Court of Common Pleas - Turning Point Program	Court program that handles cases involving drug-using/abusing, non-violent offenders, through immediate comprehensive supervision, drug testing, and treatment services, as well as immediate sanctions and incentives.	SAMHSA Grant and partners with Oriana House	Deposition of Jennifer Hawkins dated February 28, 2019, pp. 96:9-99:20 http://www.summitpcourt.net/Programs/TurningPointProgram/Pages/TurningPoint1.aspx
	Oriana House	Summit County Nonresidential Community Corrections Pretrial Diversion Program	Multiple Sources (Federal, State, Local)	http://www.orianahouse.org/programs/summit/prog_nonresidential.php
	Summit County Public Health	Project DAWN: provides naloxone kits to citizens	ADM and Grants	Deposition of Jackie Pollard dated November 30, 2018, pp. 112:7-113:15, 145:8-24 https://www.scph.org/counseling/project-dawn-narcan
	Summit County Public Health	Provide Narcan kits to people experiencing an opiate overdose that come through the emergency room	Grants	Deposition of Jackie Pollard dated November 30, 2018, p. 113:16-23
	CVS/Pharmacies	Providing Narcan at low costs or for free without Rx	Unknown	Deposition of Jerry Craig dated January 11, 2018, pp. 420:3-422:12 and Exhibit 32
	Summit County Public Health	Summit Safe Syringe Exchange Program	Grants - United Way	Deposition of Jackie Pollard dated November 30, 2018, p. 137:11-23 https://www.scph.org/counseling/summit-safe-syringe-exchange
	Summit County Public Health and ADM	Fentanyl testing strips at needle exchange sites	Summit County Public Health and ADM	https://www.wksu.org/post/morning-headlines-summit-county-unveils-fentanyl-testing-strips-cavs-re-sign-channing-frye#stream/0
	Summit County Public Health	One Life is a prevention initiative focused on youth and young adults ages 13-24 years old that includes multiple components to prevent substance misuse and the transmission of HIV and viral hepatitis.	5-year federally funded grant through SAMHSA	https://www.scph.org/std-hiv-clinics/one-life-prevention-program
	CANAPI	501(c)(3) nonprofit organization dedicated to HIV support services and LGBTQ advocacy in Summit and Portage counties.	Grants/Fundraising	http://www.canapi.org
	The Akron AIDS Collaborative	The mission of the Akron AIDS is to broaden the network of caring organizations in the minority community, to influence social norms that contribute to the prevention of HIV/AIDS, and to increase advocacy for social services for people of color who are living with HIV/AIDS and people who have suffered from sexual orientation stigma within the African American community.	Unknown	http://akronaidscollaborative.org/aac%20history.htm

Appendix 13

HIGHLY CONFIDENTIAL

Summit County
Existing or Proposed Abatement Programs

Abatement Category	Providers Within Summit County	Programs/Services Provided	Funded By	Sources
Prevention				
	Catholic Commission of Summit County	"Hope & Healing Beyond Heroin: A Family Resource Guide for Summit County," Catholic Charities, Diocese of Cleveland Provides information on how to identify opioid abuse and where individuals can seek help and/or more information.	Unknown - provided by Catholic Commission of Summit County	https://ccdocleorg.sitedistrict.com/wp-content/uploads/filebase/social%20action/social_action/Heroin-Brochure-Summit-County_final.pdf
	Summit County Opiate Task Force	A group of key individuals and organizations committed to reducing the tragic consequences of opiate abuse in Summit County through education, collaboration, advocacy, and the wise use of available resources.	Funded in part by ADM	https://www.summitcountyaddictionhelp.org/opiate-task-force-members.aspx "Report on Opioid Epidemic Impact" (SUMMIT_002053751)
	ADM	Gloves Up Campaign: promotes the ADM helpline and attempts to destigmatize treatment.	ADM	"Report on Opioid Epidemic Impact" (SUMMIT_002053751)
	Summit County Public Health	Grant funded the creation and mailing of educational materials related to prescribing opioids that was mailed out July/August.	Ohio Department of Health	Deposition of Jackie Pollard dated November 30, 2018, pp.122:5-124:10
	Summit County Public Health	Rx Drug Overdose Prevention Grant (including organizing for released prisoners to receive a Project DAWN Kit)	Ohio Department of Health	Injury Prevention Program, Prescription Drug Overdose Prevention Grants (SUMMIT_000301416 and SUMMIT_000083749)
	Akron Children's Hospital	Akron Children's Hospital addiction services program focuses on education, prevention, screening, care coordination, community outreach and referral to community resources.	Unknown - owned by Akron Children's Hospital	https://www.akronchildrens.org/departments/Addiction-Services-Program.html
	Summit County Sheriff's Office and ADM	DARE (Drug Abuse Resistance Program)	Grants	https://co.summitoh.net/sheriff/index.php/administration/community-affairs/dare https://co.summitoh.net/SHERIFF/images/stories/PDFs/2017%20annual%20report.pdf
	The Rite Aid Foundation	The Rite Aid Foundation Prescription Drug Safety Program - students learn facts about prescription drugs, how to properly use and dispose of them and how to step in when faced with a situation involving misuse.	Rite Aid Foundation	https://www.cleveland.com/akron/2019/02/rite-aid-foundation-brings-prescription-drug-safety-program-to-akron-area-schools.html
	ADM	"Recovery. It's Worth the Fight" - Addiction Resource Guide	Sponsored by Cleveland Clinic, ADM, First Energy, & Akron Children's Hospital	https://www.summitcountyaddictionhelp.org/Data/Sites/19/pdfs/addiction-resource-guide---second-edition-8-17.pdf
	ADM	"Resources for Educators"	ADM	https://www.summitcountyaddictionhelp.org/opiate-epidemic-resources-for-educators.aspx
	IBH	Family education classes designed to assist in the full journey of recovery and those affected by the disease	Multiple Sources (Local)	https://www.ibh.org/treatment-programs/family-education/
	Summit County Public Health	DUMP Program - place to dispose of Rx medication	DEA / ADM / Summit County Public Health	Deposition of Matthew Paolino dated December 5, 2018, pp. 136:13-140:3 https://www.scph.org/dump/about

Appendix 13

HIGHLY CONFIDENTIAL

Summit County

Existing or Proposed Abatement Programs

Abatement Category	Providers Within Summit County	Programs/Services Provided	Funded By	Sources
Prevention (continued)				
	Summit County Community Partnership	Donation of 40,000 drug deactivation pouches	Mallinckrodt Pharmaceuticals	http://www.akron.com/akron-ohio-community-news.asp?aID=31848 http://www.uwsummit.org/investments
	United Way	The Detera Project: Prevention of Prescription Drug Abuse, Summit County Community Partnership	United Way	https://www.uwsummit.org/investments
	Summit County Prosecutor	Grant for funding 2 additional prosecutors for an Opiate Unit in Summit was denied	N/A	Deposition of Brad Gessner dated December 3, 2018, pp. 98:25-102:6 and Exhibit 8
System Coordination				
	Ohio Mental Health & Addiction Services	Ohio Substance Abuse Monitoring (OSAM)	Ohio Department of Mental Health and Addiction Services (ODMHAS)	https://mha.ohio.gov/Research/Ohio-Substance-Abuse-Monitoring-OSAM-Network http://www.fairfieldadamh.org/uploads/1/3/1/0/13100616/osam_faq_brochure.pdf
	Ohio Automated Rx Reporting System (OARRS)	OARRS collects information on all outpatient prescriptions for controlled substances and one non-controlled substance (gabapentin) dispensed by Ohio-licensed pharmacies and personally furnished by Ohio prescribers. This data is reported every 24 hours and is maintained in a secure database. Drug wholesalers are also required to submit information monthly on all controlled substances and gabapentin sold to an Ohio licensed pharmacy or prescriber.	State of Ohio Board of Pharmacy	https://wholesale.ohiopmp.gov/Integration.aspx

Highly Confidential

Appendix 14

Appendix 14

HIGHLY CONFIDENTIAL

State of Ohio

Existing or Proposed Abatement Programs

Abatement Category	Providers Within Ohio	Programs/Services Provided	Funded By	Sources
Treatment				
	Ohio START (Sobriety, Treatment, and Reducing Trauma)	Provide specialized victim services, such as intensive trauma counseling, to children who have suffered victimization due to parental drug use. The program will also provide drug treatment for parents of children referred to the program.	Victims of Crime Act (VOCA) Grant from Ohio Attorney General's Office and State Opioid Response (SOR) Grant from Ohio Department of Mental Health and Addiction Services.	http://www.pcsao.org/pdf/misc/OhioSTARTExecutiveSummary.pdf http://www.pcsao.org/programs/ohio-start
	Ohio Mental Health and Addiction Services MAT-PDOA	The state program is aimed at enhancing access to medication assisted treatment and reducing the number of overdose deaths associated with Ohio's opioid epidemic by implementing high-priority MAT projects identified by nine Alcohol, Drug Addiction and Mental Health Services boards.	Ohio Department of Mental Health and Addiction Services (ODMHAS)	https://mha.ohio.gov/Treatment/MAT-PDOA
	Ohio Mental Health and Addiction Services	Provides online resources, class, and materials for "Screening, Brief Intervention and Referral to Treatment" (SBIRT).	Federal Substance Abuse and Mental Health Services Administration (SAMHSA)	https://mha.ohio.gov/Treatment/SBIRT https://www.integration.samhsa.gov/resource/sbirt-resource-page
	The Ohio Housing Finance Agency (OHFA)	Provides adequate and affordable housing to individuals and families affected by opioid addiction	Unknown	https://ohiohome.org/news/blog/january-2019/opioidepidemic.aspx
	30 Days to Family Ohio	Short-term intensive intervention program that moves children from foster care to safe kinship placements in the shortest time possible.	Victims of Crime Act (VOCA), KeyBank Foundation, Mt. Sinai Health Care Foundation and Nord Family Foundation	https://www.ohioattorneygeneral.gov/Files/Briefing-Room/News-Releases/30-Days-to-Family-Interim-Report.aspx
	Maternal Opiate Medical Supports (MOMS) Program	Practitioners working across Ohio to improve services for moms with opioid use disorder and their babies - website with different resources for expecting mothers	Ohio Department of Medicaid, Ohio Department of Mental Health and Addiction Services, and the Ohio Department of Health	http://momsohio.org/moms-moms-to-be
	Ohio Perinatal Quality Collaborative MOMS+ Project	The goal of MOMS+ is to improve care and outcomes for the mother-infant dyad by supporting maternity care providers in the care of pregnant women with OUD, working closely with those who provide medication assisted treatment (MAT) and behavioral health (BH) therapy.	Ohio Department of Medicaid, Ohio Department of Mental Health and Addiction Services, and the Ohio Department of Health	https://opqc.net/sites/bmidrupalpopqc.chmcres.cchmc.org/files/MOMS+/2018.03.23_MOMS%2B%20One%20Pager.pdf
	Perinatal Quality Collaborative recommended NAS Protocol	The Ohio Children's Hospitals Neonatal Research Consortium Enteral Morphine or Methadone Protocol for NAS From Maternal Exposure	Unknown	https://pediatrics.aappublications.org/content/141/4/e20170900 https://pediatrics.aappublications.org/content/pediatrics/suppl/2018/03/05/peds.2017-0900.DCSupplemental/PEDS_20170900SupplementaryData.pdf

Appendix 14

HIGHLY CONFIDENTIAL

State of Ohio

Existing or Proposed Abatement Programs

Abatement Category	Providers Within Ohio	Programs/Services Provided	Funded By	Sources
Harm Reduction				
	Cardinal Health Narcan Donation Program	Cardinal Health has made available more than 80,000 doses of Narcan®, which the NASEM identified as a life-saving medication that reverses opioid overdoses, for distribution for first responders and law enforcement free-of-charge.	Cardinal Health	https://www.cardinalhealth.com/en/about-us/corporate-citizenship/opioid-action-program/taking-action/narcan-donation-program.html
	Syringe Services Programs	Ohio currently has 16 syringe exchange programs throughout the state	Since mid-2018 Ohio Department of Health has made fund available	https://www.cleveland.com/business/2019/03/ohio-syringe-exchange-programs-double-in-three-nearly-years-report-finds.html
	Circle Health Services	Circle Health Services Syringe Exchange Program	Circle Health Services	https://circlehealthservices.org/wp-content/uploads/2016/04/FreeClinic_annualreport2015_web.pdf
	Ohio Department of Health Hepatitis Prevention Initiative	Initiative provides technical support and guidance to local public health, private providers, healthcare facilities, community agencies, substance abuse treatment centers, correctional facilities and the general public for the prevention and control of hepatitis C virus (HCV) in Ohio.	Ohio Department of Health	https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/Hepatitis-Prevention/hepatitis-prevention
	Ohio Department of Health Hepatitis Surveillance Program	Program is responsible for the ongoing and systematic collection, analysis, interpretation and dissemination of population-based information about persons diagnosed with non-perinatal hepatitis B virus (HBV), hepatitis C virus (HCV) and hepatitis D virus (HDV) in Ohio.	Ohio Department of Health	https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/Hepatitis-Surveillance-Program/Hepatitis-Surveillance-Program
	Ohio Department of Health's HIV Prevention	Program coordinates the Statewide HIV Prevention Planning Group, develops and implements the Ohio HIV Prevention Plan, coordinates the HIV testing program, and provides capacity building and training for community partners and public health staff. The HIV Prevention Program also provides funding to community-based organizations and public health districts throughout the state to provide prevention interventions.	Ohio Department of Health	https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/hiv-prevention/welcome-to
	Ohio Department of Health's HIV/AIDS Surveillance	Program is responsible for the on-going and systematic collection, analysis, interpretation, and dissemination of population-based information about persons diagnosed and living with HIV and/or AIDS in Ohio.	Ohio Department of Health	https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/hiv-aids-surveillance-program/welcome-to
	Ohio Department of Health AIDS Drug Assistance	Program provides medications to treat HIV and HIV-related conditions free of charge to eligible participants.	Ohio Department of Health	https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/Ryan-White-Part-B-HIV-Client-Services/AIDS-Drug-Assistance-Program/

Appendix 14

HIGHLY CONFIDENTIAL

State of Ohio
Existing or Proposed Abatement Programs

Abatement Category	Providers Within Ohio	Programs/Services Provided	Funded By	Sources
Prevention				
	Ohio Opioid Education Alliance	"Don't Live in Denial, Ohio" Advertising Campaign	Multiple Sources (Nationwide Foundation, ADAMH, Columbus Foundation, et al)	https://www.dispatch.com/news/20180619/new-ads-warn-dont-live-in-denial-ohio-talk-to-your-kids-about-opioids
	TakeChargeOhio	"Start Talking!" Campaign - developed to give parents, guardians, educators and community leaders the tools to start the conversation with Ohio's youth about the importance of living healthy, drug-free lives.	Multiple Sources (Local, State, & Federal)	https://www.starttalking.ohio.gov/
	Ohio Department of Education	ENCORE: Not Even Once Blog - An Ohio Department of Education Blog addressing various topics, including opioid abuse.	Ohio Department of Education	https://education.ohio.gov/Media/Extra-Credit-Blog/October-2018/GUEST-BLOG-Not-Even-Once-Addressing-the-Opioid-E2
	The Rite Aid Foundation	The Rite Aid Foundation Prescription Drug Safety Program - a digital course about prescription drug abuse prevention.	Rite Aid Foundation	https://www.pharmacytimes.com/sap-news/rite-aid-foundation-launches-prescription-drug-safety-initiative-in-ohio-high-schools-
	Ohio Attorney General's Drug Abuse Resistance Education Programs (D.A.R.E. programs)	These grants fund law enforcement agencies to establish and implement drug abuse resistance education programs in public schools.	Ohio Attorney General	https://www.ohioattorneygeneral.gov/Law-Enforcement/Local-Law-Enforcement/Drugs/Drug-Use-Prevention-Program-Grant
		Opioid Toolkit - Online courses available for:		http://dare-oh.org/
	Ohio Chamber of Commerce	Employers - This 5-module course that gives an overview of the legal and operational issues an employer must consider in dealing with an employee's use of opioids and other substances. The modules include best practices around how, when and why to drug test; how to handle a situation if the employee confesses or is discovered to be using harmful substances; and much more. Employees - This employee education course teaches the employee a five point strategy and provides downloadable tools to enable the employee to understand the dangers of misusing prescription drugs and how to be a safe and responsible consumer of drugs.	Ohio Chamber of Commerce	https://ohiochamber.com/opioid-toolkit/
	Generation Rx	The mission of Generation Rx is to educate people of all ages about the potential dangers of misusing prescription medications. In doing so, we strive to enhance medication safety among our youth, college students, other adults in our communities, and older adults.	The Ohio State University College of Pharmacy and Cardinal Health Foundation	https://www.generationrx.org/
	Ohio Prevention Action Alliance	Prevention Action Alliance, formerly Drug Free Action Alliance, is a certified prevention agency that has been leading the way in promoting healthy lives through the prevention of substance misuse and fostering mental health wellness for more than 30 years.	Partners with Ohio Mental Health and Addiction Services (OMHAS); Cardinal Health, Verizon, and Westfield Insurance Foundation	https://preventionactionalliance.org/learn/

Appendix 14

HIGHLY CONFIDENTIAL

State of Ohio

Existing or Proposed Abatement Programs

Abatement Category	Providers Within Ohio	Programs/Services Provided	Funded By	Sources
Prevention (continued)				
	The G.A.P. Network	<p>The G.A.P. Network was created to bring information, education, advocacy opportunities, networking, and support to individuals who have lost a loved one to an overdose and to family engagement groups that are working to end addiction to prescription drugs and opiates in Ohio.</p> <p>The G.A.P. Network gives a voice to shattered families, provides needed support, and works diligently together to raise awareness, advocate for change, and impact policies that can save more Ohio families from the devastation of drug addiction.</p>	Partners with Ohio Mental Health and Addiction Services (OMHAS); Cardinal Health, Verizon, and Westfield Insurance Foundation	https://preventionactionalliance.org/connect/the-gap-network/
	Ohio Citizen Advocates for Addition Recovery Trainings	OCAAR offers webinars throughout the year to assist in educating people impacted by addiction on a multitude of issues.	Unknown	https://www.oca-ohio.org/trainings
	Cardinal Health Opioid Action Program	Expanding the existing Generation Rx prescription drug misuse prevention education (<i>see above</i>) and best practices in pain medication use programming with a variety of new grant programs funded by Cardinal Health's Opioid Action Program	Cardinal Health	https://www.cardinalhealth.com/en/about-us/corporate-citizenship/opioid-action-program/taking-action/prevention-education-and-better-prescribing-practices.html
	The Northeast Ohio Hospital Opioid Consortium	The Northeast Ohio Hospital Opioid Consortium works collaboratively to address the region's opioid epidemic. The principal goal of the Opioid Consortium is to serve as a model hospital system-based and physician-led consortium that significantly reduces the impact of the opioid epidemic in Northeast Ohio.	Cleveland Clinic, MetroHealth and University Hospitals, and The Center for Health Affairs	https://neohospitals.org/Northeast-Ohio-Hospital-Opioid-Consortium
	Ohio Senate Bill 319 - Holding Pharmacy Technicians to Stronger Accountability	Requires Ohio's estimated 42,000 pharmacy technicians to register with the Board of Pharmacy, reforms in Senate Bill 319 ensure uniformity in the background-check process and require all technicians to maintain a set level of competency through continuing education.	Unknown	http://fightingopiateabuse.ohio.gov/Portals/0/PDF/SB 319 Fact Sheet.pdf
	Ohio Department of Health and the Drug Free Action Alliance	Provides free collection bins to local law enforcement agencies in Ohio.	Attorney General and Ohio Department of Health	https://www.ohioattorneygeneral.gov/Individuals-and-Families/Victims/Drug-Diversion/Prescription-Drug-Drop-Boxes
	Expansion of the Drug Abuse Response Teams and Quick Response Teams	Announced details regarding \$3 million in grants that will be used to help replicate or expand Drug Abuse Response Teams (DARTs) and Quick Response Teams (QRTs) to address the opioid epidemic in Ohio. The grant funding will support efforts similar to the QRTs in Colerain Township (Hamilton County) and Summit County, as well as the DART in Lucas County.	State of Ohio	https://www.ohioattorneygeneral.gov/Media/News-Releases/July-2017/Three-Million-in-Grants-for-DART-and-QRT-Teams-%281%29

Appendix 14

HIGHLY CONFIDENTIAL

State of Ohio

Existing or Proposed Abatement Programs

Abatement Category	Providers Within Ohio	Programs/Services Provided	Funded By	Sources
System Coordination				
	Health Policy Institute of Ohio	Ohio addiction policy inventory and scorecard: Prevention, Treatment and Recovery. It is a series of inventories and scorecards analyzing Ohio's policy response to the addiction crisis and outlining areas where the state could be more effective. The report provides policymakers and other stakeholders with the information needed to take stock of Ohio's policy response to the addiction crisis over the past five years by reviewing state-level policy changes enacted in Ohio from 2013-2017.	Health Policy Institute of Ohio	http://www.healthpolicyohio.org/ohio-addiction-policy-inventory-and-scorecard-prevention-treatment-and-recovery/
	Ohio's Prescription Drug Monitoring Program (PDMP) through Ohio Automated Rx Reporting System (OARRS)	To address the growing misuse and diversion of prescription drugs, the State of Ohio Board of Pharmacy created Ohio's Prescription Drug Monitoring Program (PDMP), known as the Ohio Automated Rx Reporting System (OARRS).	State of Ohio Board of Pharmacy	https://wholesale.ohiopmp.gov/Integration.aspx
	Ohio State University, College of Public Health	EMS Data Collection - is a collaboration with several Ohio State faculty members and multiple community partners, collecting detailed data on overdose cases from EMS agencies in Franklin County	Multiple Sources (mainly HEALing Communities federal research grant)	https://oaa.osu.edu/leveraging-our-expertise-fight-opioid-crisis
	Ohio Mental Health & Addiction Services	Ohio Substance Abuse Monitoring (OSAM)	Ohio Department of Mental Health and Addiction Services (ODMHAS)	https://mha.ohio.gov/Research/Ohio-Substance-Abuse-Monitoring-OSAM-Network http://www.fairfieldadamh.org/uploads/1/3/1/0/13100616/osam_faq_brochure.pdf